

JAN 19 1966

GUIDE

to DRIVER

Education and
HIGHWAY SAFETY

FOR

The ADMINISTRATOR

The SAFETY SUPERVISOR

The DRIVER *Education*
INSTRUCTOR

The CLASSROOM TEACHER

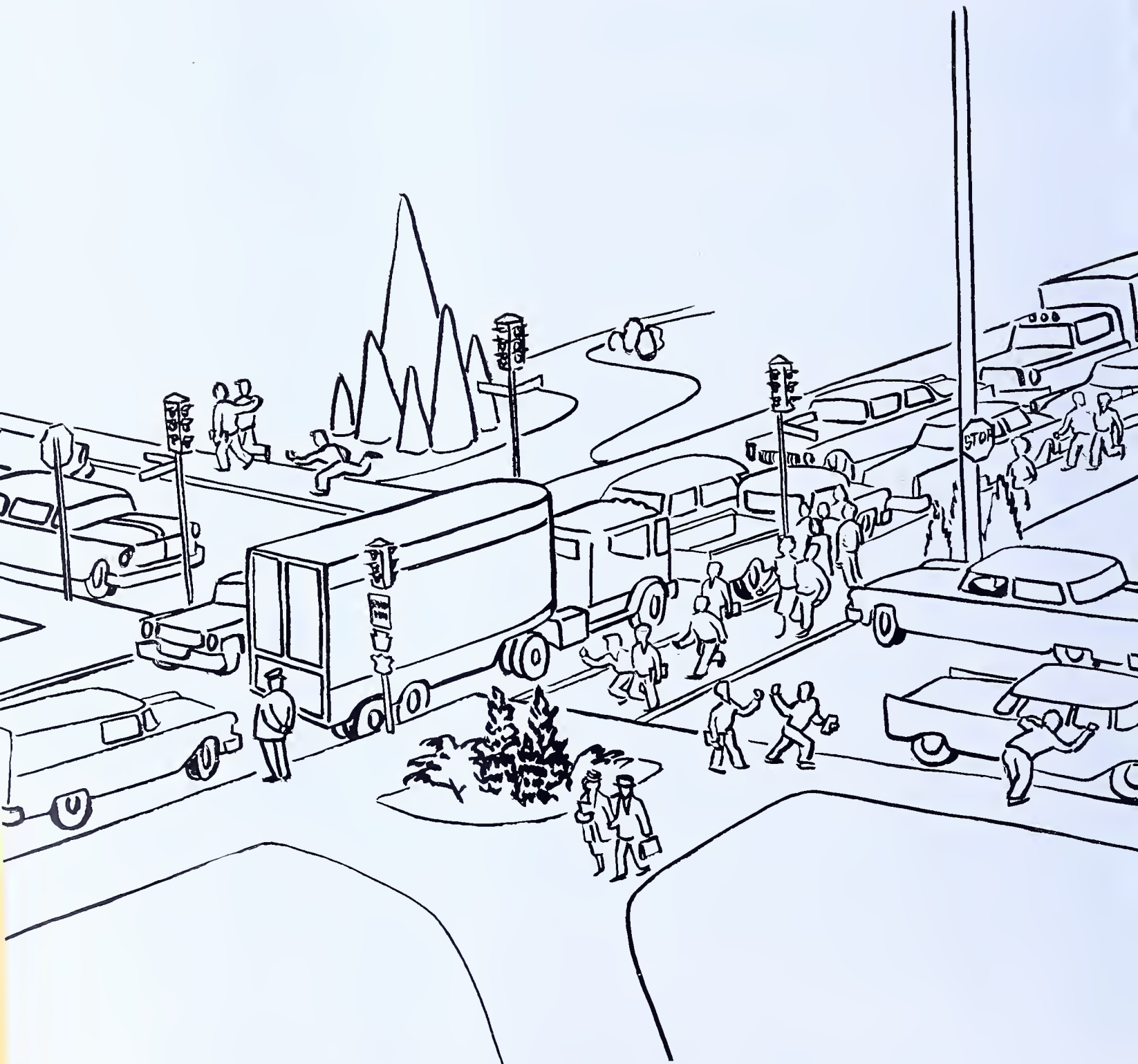
HOW
TO DRIVE *and*
HOW
to
SURVIVE
in **TRAFFIC**

DOCUMENTS SECTION

A guide to
DRIVER EDUCATION
and
**HIGHWAY
SAFETY**



COMMONWEALTH *of* PENNSYLVANIA
DEPARTMENT PUBLIC INSTRUCTION
HARRISBURG.



Foreword

THIS manual is being presented to school administrators, safety supervisors, driver education instructors, and classroom teachers to improve the organization and instruction of Highway Safety Education.

The manual should serve a definite purpose, both on the reference shelf of the administrator and lying open on the desk of the classroom instructor. The organizer of a new highway safety education program will find the majority of his questions answered in the manual.

The specific term Driver Education and the general term Highway Safety Education are used frequently. *Driver Education* as used herein consists of classroom instruction and practice driving to help students learn to operate a motor vehicle safely and efficiently. *Classroom Instruction* in driver education refers to learning experiences which are provided elsewhere than in an automobile. *Practice Driving* refers to learning experiences for the student as an observer and student driver in an automobile. The purposes and objectives of driver education are the same in the classroom and in a motor vehicle but certain objectives are more readily achieved through practice driving than through classroom instruction.

Highway Safety Education as used herein means all learning experiences, other than as a driver of an automobile, which help persons to use the highways without injury to themselves and others.

The safety supervisor will find herein suggestions for the improvement and evaluation of his program. His relationship with the professional employee and the community has been included in the manual. The instructor can familiarize himself with many of the problems and the solutions faced by the administration when instituting a highway safety education program within the school system. A series of classroom instruction units are available, including a step-by-step procedure for the practice driving instruction offered in the training car.

The information that has been included in the manual is for the guidance of all concerned but must not be considered the final word on any specific phase of the program. Utilize the manual to the best of your ability and seek additional information and assistance from the bibliography and other sources.

This bulletin was prepared under the direction of Ivan J. Stehman, Coordinator, Division of Highway Safety Education, Bureau of Field Supervisory Services, Department of Public Instruction. It represents the cooperative activities of a statewide production committee on Highway Safety Education, with assistance from additional teachers and administrators throughout the Commonwealth. The sketches and illustrations were produced by Warren E. Mullen, Art Instructor, Carlisle Area Senior High School, Carlisle.

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INTRODUCTION



NEED FOR PUBLIC SUPPORT OF THE DRIVER EDUCATION PROGRAM

THE SPEED with which we have been transformed from the horse and buggy era to a highly mechanized and mobile nation has been too fast for the progress of remedial and preventive programs. Regulation of traffic and the enforcement of traffic regulations have lagged behind the speed of the vehicles and the speed of their production.

If the public is informed of essential improvements in traffic regulation, it will support highway safety activity. Traffic authorities can find support in and work effectively through such groups as civic organizations, service clubs, religious groups, fraternal, business, and industrial bodies, and labor groups.

Public support will be most effective when channeled through a central organization so that carefully coordinated mobilization can bring all available resources to bear on the segments of the total problem.

To meet the existing traffic problems in a community, education must employ all facts and media for the purpose—radio, television, press, speakers' bureaus, posters—in fact, all means must be used to make the community conscious of existing problems. Only when there is a concentrated effort of all groups, using all available media for the education of the public to the problems at hand can we 1) *revise laws and ordinances which are outmoded*; 2) *adopt new provisions for better regulation of traffic*; 3) *obtain funds for projects*; 4) *do specific jobs that require immediate attention*.

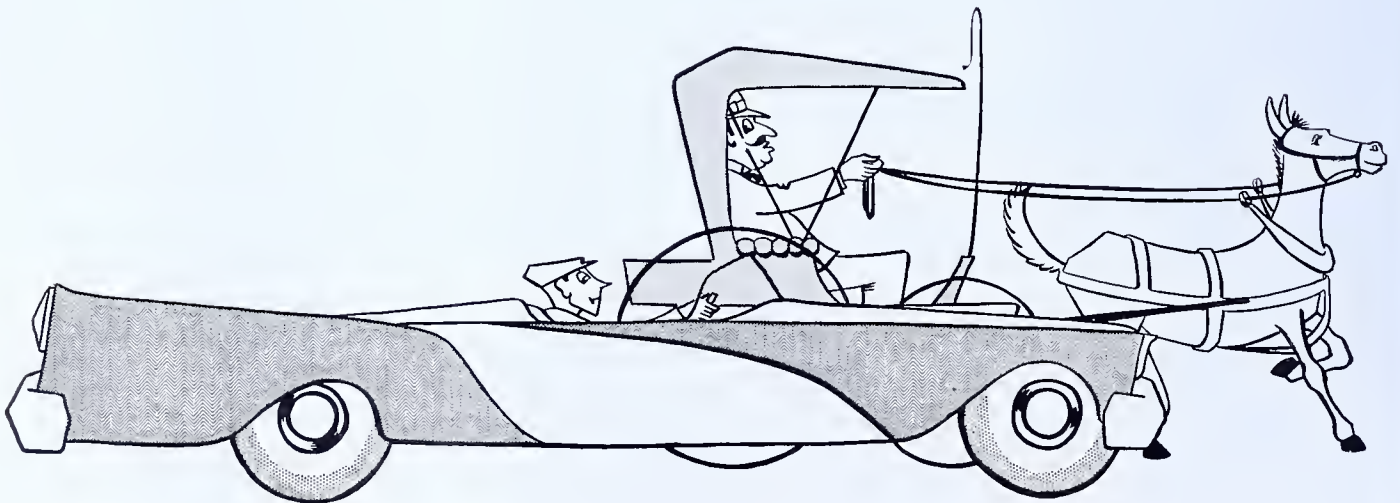
Safety work is more than taking precautions for one's own welfare. To keep one another safe is a common task of all citizens, young and old.

It is imperative that all citizens become part of the safety movement. There is a place for each one to fill on a plant safety committee, in a community safety organization, or in a civic or service organization which has an occasional safety program.

As a citizen you will probably come in contact with the work of the National Safety Council and the safety activities of the Red Cross, the automobile associations, farm organizations, unions, business organizations, and service clubs. There will be times when you as a citizen will be given the opportunity to vote wisely for safety projects and for individuals who are concerned with local, state, or federal safety projects.

Safety is everybody's business. It is your business. Taking an active part in some phase of a safety program is a mark of good citizenship. Safety Education and participation in safety projects are essential in educating for good citizenship.

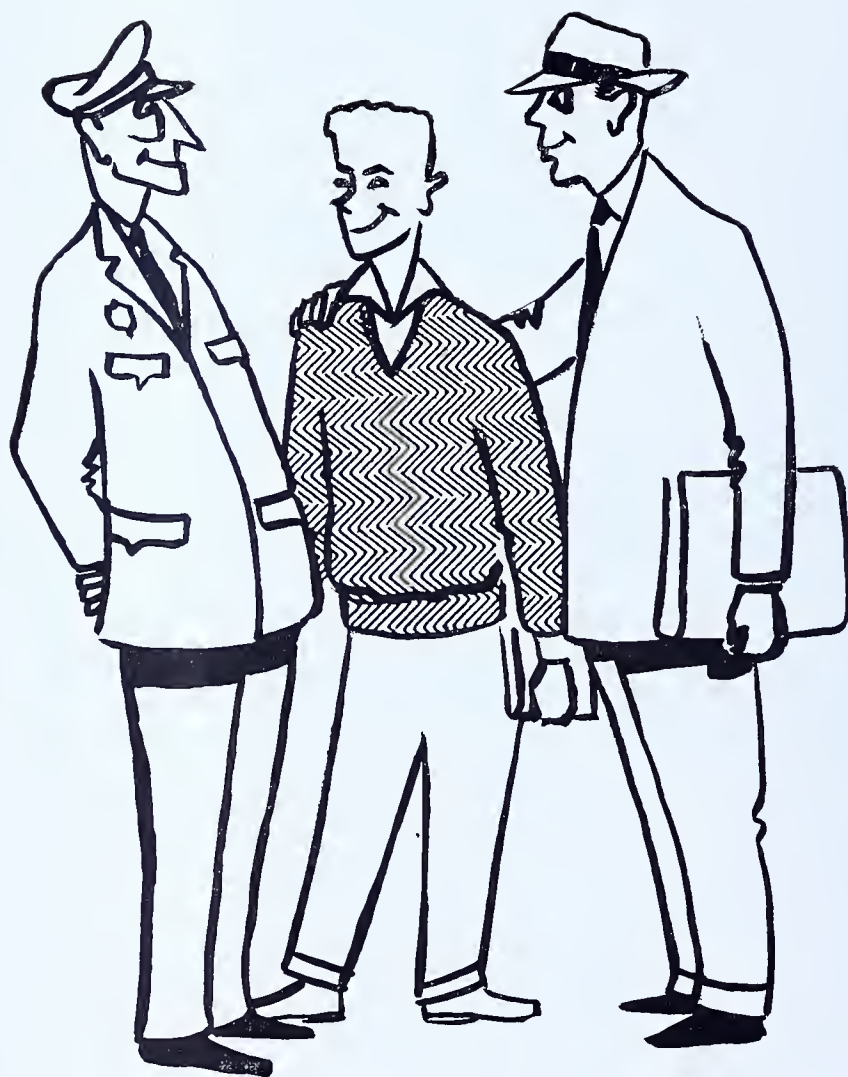
It is important that high school youth be educated through a carefully organized safety program to develop their own powers, to focus them on a single objective, and to mobilize them quickly and completely when the need arises. Training in highway safety also has definite value in preparing youthful drivers to become courteous, safe citizens on our highways.



CHAPTER I

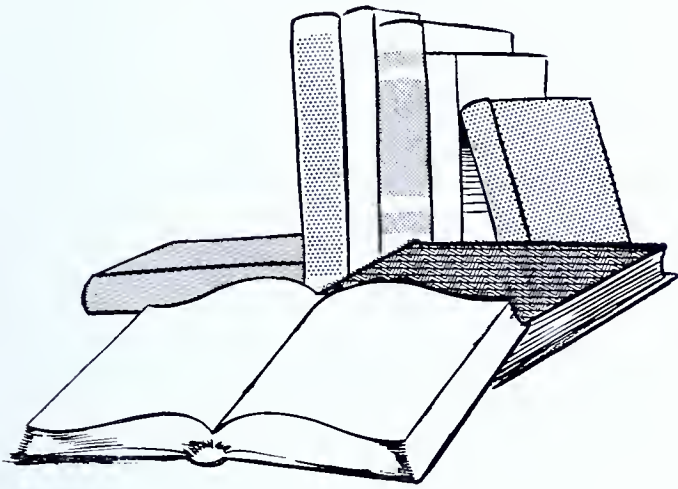
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Establishing a Sound Program in Driver Education



CHAPTER I

Establishing a Sound Program in Driver Education



6. That money spent for traffic safety education will draw rewards in the form of lives saved, injuries avoided, and reduced costs for accidents
7. That properly trained high school students will set an example for others in moral and social responsibility on our streets and highways

B. Aims and Objectives

Study of the actions of drivers and pedestrians on the street will convince the competent observer that the following objectives set up for Driver Education courses, if attained, will contribute materially to the improvement of traffic conditions. An effective program for teaching driver education in the high school must have the following outcomes:

It must bring to the boys and girls: (a) a realization of the effect on safe conduct of physical, mental, and emotional traits and habits of drivers and pedestrians; (b) a recognition of their own deficiencies which may affect their practices; and (c) a knowledge of the steps that they can take to remedy or compensate for such deficiencies.

It must establish in the minds of boys and girls sound principles and practices fundamental to safety and efficiency in traffic, whether as driver or pedestrian, in city or country, in daylight or darkness.

It must provide for the establishment of such habits and the perfecting of such skills as will embody the basic principles of safety and as will assure for the boy or girl safe and efficient performance as driver or pedestrian.

It must develop attitudes, appreciations, understandings, and knowledges essential to (a) safe, sane, cooperative, responsible use of streets and highways; (b) sincere acceptance of individual and group responsibility for conservation of health, life, and property in traffic; and (c) support of further development and improvement of traffic conditions through programs of engineering, legislation, enforcement, and education.

A. Basic Beliefs

Educational leadership must assume its full measure of responsibility for citizenship training in the field of Highway Safety. The frequency of death and injury on our highways has compelled thinking educators to take another look at our educational philosophy in order to determine their responsibility in trying to alleviate this man-made slaughter in our civilized nation. As a result of this re-evaluation, certain basic beliefs are set down as a guide to thinking at all educational levels.

We believe:

1. That highway safety is one of our major social problems in the United States today
2. That the automobile affects all phases of living to the extent that its safe use has placed it in a category of importance similar to our fundamental processes of learning reading, writing, and arithmetic
3. That high school driver education is one of the best weapons to combat this blight on our way of life
4. That every child of legal driving age has a right to become an informed highway user
5. That to deny a child the right for proper instruction in the use of our highways is gross negligence

C. Recommended Policies

Secondary education should assume responsibility for driver education for all students so that this instruction is received at a time as close to legal driving age as is possible.

The curriculum in driver education should meet the prerequisites of the standardized program as developed by the Department of Public Instruction in accordance with Section 1519.1 of the 1949 School Code as amended by Act 498, approved January 8, 1952, wherein provisions for at least 30 hours of classroom instruction and eight hours of practice driving instruction were established.

Learning experiences involving night driving should be made available to all regular students enrolled in practice driving. Fitting these learning experiences into the student's schedule may be a major problem. The solution of this problem is the responsibility of the local school district administration.

Academic credit toward graduation should be placed upon the same basis as any other elective subject.

The materials, facilities, and time for instruction must be provided for in accordance with the provisions of the standardized program.

The physical and mental fitness of students for practice driving instruction should be determined by proper medical authorities when the instructor is doubtful of such fitness.

Out-of-school agencies should be used to supplement instruction when such agencies are in position to enrich the highway safety education program and have the approval of local school authorities.

Only properly certificated teachers approved by the Department of Public Instruction should be hired for this program of instruction.

The full potential of each teacher should be utilized in the interest of a complete safety program for the community.

In terms of instructional periods, the teaching load for the driver education teachers should be comparable to that of other subject teachers in the school.

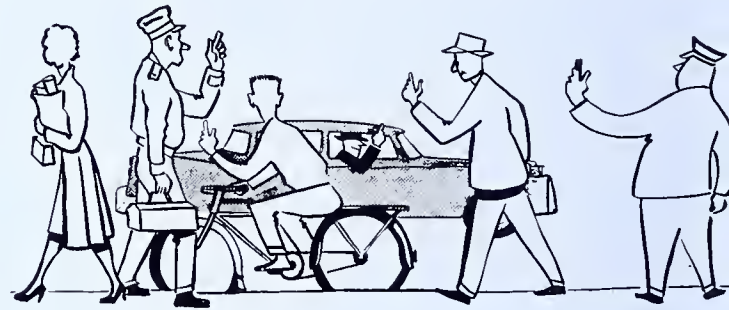
Insurance on the driver education car to cover any emergency is mandated—at least \$100,000 to \$300,000 public liability; \$10,000 property damage; and \$2,000 medical.

Students in practice driving should be required

to participate in the school's group accident policy program.

Parents should be encouraged to enter into this highway safety program to the extent of:

- a. Granting permission for enrollment in practice driving in school car.
- b. Permitting the use of family car for practice driving in company of licensed driver after adequate driving instruction has been given by the school.
- c. Use of car for final testing and licensing.
- d. Controlled use of family car by the student, following his obtaining of a license. (See sample letter to parent in Appendix, page 81.)



D. Public Relations

To approach Highway Safety Education properly, one must first consider the philosophy behind such a program. No better statement has been made than that contained in "A Safety Charter for Children and Youth."

The Charter reads:

- a. For every child—a safe dwelling place
- b. For every child—education for safety and protection against accidents to which modern conditions subject him
- c. For every child—a community which recognizes and plans for his needs, protects him against physical dangers, and provides him with safe and wholesome places for play and recreation

From the "Charter" point of view our schools have a tremendous responsibility in the role of leadership. At this point it might be well to differentiate between "public relations" and mere "publicity" by pinpointing a good public relations program. This is well presented in the 1950 Yearbook of the American Association of School Administrators as follows:

- a. School Public Relations must be honest in intent and execution.
- b. School Public Relations must be intrinsic.
- c. School Public Relations must be continuous.
- d. School Public Relations must be positive in approach.

- e. School Public Relations should be comprehensive.
- f. School Public Relations should be sensitive to the public and its component parts.
- g. The ideas communicated must be simple.

The program of public relations must have certain underlying beliefs if it is to interpret effectively the proper place of education in a democratic society. This is the belief that:

- a. The development of the child in terms of his and society's needs is paramount.
- b. The people must be kept well informed on the job our schools are doing.
- c. The development of a greater respect and broadened confidence is necessary if the schools are to get the liberal support which is necessary for their proper functioning.
- d. We must constantly keep before the people, the keystone role played by education in our democratic society.
- e. It is essential to seek better solutions for educational problems through a team approach of home, school, and community in order to better meet the educational needs of all the people.

A public relations program can not be manufactured out of thin air. The determining factors are the local needs and a better interpretation of these needs to the people for whom educators operate the schools. This is an absolute necessity if the public relations program is to succeed.

The responsibility of the school administrator is broader than the interpretation of the public school program in terms of accurate and ample information. Keep your public informed of the effective Highway Safety Education program that your system is extending to its students.

E. Requirements of the School Code for the Standardized Program

Section 1519. Teaching of Safe Driving of Motor Vehicles.—

(a) Any school district may provide for the teaching of safe driving of motor vehicles in the elementary and secondary schools of the district or in the secondary schools only, in accordance with the standardized program established by the Department of Public Instruction. In the case of pupils under the age of sixteen (16) years, such instruction shall be limited to classroom instruction by those who shall possess the qualifications prescribed by the State Council of Education. In the case of pupils of the age of six-

teen (16) years and over, the instruction may include practical instruction in the operation of motor vehicles on the public highways, or other places, selected by the board of school directors or by the principal of the school where the instruction is given.

* * * * *

(c) The board of school directors may appropriate and expend money of the school district for the purpose of paying the compensation of the instructors and to purchase, rent, or hire motor vehicles, automobile liability insurance, and to maintain and repair the same and to purchase fuel, lubricants, parts and accessories therefor.

Section 1519.1. Standardized Driver Education Program.—

(a) The Department of Public Instruction shall establish, for operation in the public school system of the Commonwealth, a standardized driver education program in the safe operation of motor vehicles.

(b) The Department of Public Instruction shall assist school districts throughout the Commonwealth in the functioning of such program by—

(1) Preparation, publication, and free distribution of driver education instructional material to insure a more complete understanding of the duties of motor vehicle operators;

(2) Making such rules and regulations as may be necessary to carry out such program.

(c) Every school district complying with the standardized program established by the Department for the school year 1951-52 and for every school year thereafter shall be paid a sum which shall be proportionate to the total amount available to the Department from the Motor License Fund for allocation and distribution to all school districts in the Commonwealth after payment of the following, which shall not exceed, during each school year, a sum equal to ten (10) cents for each motor vehicle learner's permit issued subsequent to the fifteenth day of October, one thousand nine hundred fifty-one, namely: (1) salaries and traveling expenses of employees of the Department of Public Instruction essential to the program; (2) purchase of visual training aids and psychophysical testing equipment; and

(3) costs of preparation, publication, and distribution of driver education instructional material, for assistance to their driver education programs, as the ratio which the average daily membership of pupils over fifteen (15) years of age in such driver education courses in such school districts bears to the total average daily membership of pupils over fifteen (15) years of age in such driver education courses in all school districts in the Commonwealth: Provided, That the payment shall not exceed the sum of ten (\$10) dollars for each such pupil per school year. Allocations and apportionments within any school district shall be made according to a similar ratio. Such sums shall be paid in the same manner as other reimbursements are paid to school district. (Added January 8, 1952. Amended July 27, 1953.)

AMENDMENT TO SECTION 1519.1—PUBLIC SCHOOL
CODE

Effective 1956

ACT No. 555 (Senate Bill No. 876—Printer's No. 668) amends Section 1519.1 of the Public School Code of 1949, P. L. 30, and adds a new Section 2504.1.

The act eliminates the limitation of \$10.00 per pupil, per school, enrolled in the Standardized Driver Education Program and adds a new Section 2504.1 which states that for the school year 1955-1956, school districts offering the Standardized Program of Driver Education will receive financial assistance based on their standard reimbursement fraction times an amount up to \$32.00 per pupil enrolled in the Standardized Driver Education Program. It further provides that no school shall receive less than \$10.00 per student enrolled in the Standardized Program of Driver Education.

The act also provided that school districts shall be reimbursed for the school year 1954-55, on the basis of the reimbursement fraction times \$30.00.

This amending Act shall apply to payments made for the school year 1954-55, and for every school year thereafter. The existing law shall continue in effect as to payments for school years prior to 1954-55. *Approved by the Governor, May 21, 1956.*

CHAPTER II

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Administration of the Driver Education Program



CHAPTER II

Administration of the Driver Education Program

Driver Education is vital to the success of the safety movement.

"The schools have had a worthy part in the work already done. Important results have been secured, but there is still much to do, and that which has already been done should be considered only as the groundwork for the accomplishment of the future." *18th Yearbook AASA 1940*

School administration often uses the term "difficulty in scheduling" and "over-crowded curriculum" as reasons why driver education cannot be offered. However, since thousands of schools have been able to work out a schedule for driver education, it is reasonable to assume that other schools can do the same. Whenever school administrators have recognized the importance of traffic safety education, scheduling difficulties have been overcome.

A schedule cannot be prepared which will prove satisfactory for use by all schools because every schedule must be designed to fit a local situation. The individual school administrative unit must solve its own particular scheduling problem.

Regardless of the type of program to be established, schedule time and classroom space must be provided. It is not advisable, in most cases, to draw students from other classes for driver education. A period allotment should be designated within another subject for the classroom phase, or it may be established as a regular subject in the school curriculum. The latter is recommended.

Scheduling the practice driving phase presents a problem different from that in other subjects because of the small number of students per period. Therefore it is desirable that students be scheduled for practice driving during study periods, vacant periods, or extra periods at the end of the school day. In some cases the classroom phase of instruction may be taught during the school session reserved for special activities or during the summer vacation.

Driver education in order to be effective should be organized, and placed so as to fit harmoniously

into the complete school program.

The essential requirements of a well-organized and well-administered highway safety education and driver education program follow:

A. Required Instruction

1. Classroom (Highway Safety Education and Driver Education)

A minimum of 30 hours of classroom instruction in safety for drivers, pedestrians, bicycle riders, and other users of the highway.

2. Practice Driving

A minimum of 8 hours of practice driving in actual behind-the-wheel instruction.

B. Place in the Curriculum

1. Experience with practice driving has shown that the best time to provide driver education for the beginning driver is at the age of sixteen when the student usually applies for a learner's permit. The most common age of the student in the eleventh year in school is sixteen; therefore the placement of practice driving in the curriculum in the eleventh year would take care of the largest number of pupils in this age group. However, it should be available to other students who become sixteen in grades ten or twelve.

2. It is recommended that classroom instruction should include both Highway Safety Education and Driver Education. (See introduction, page ix)

3. Practice driving should be an elective subject.

4. Classroom instruction in highway safety education for drivers, pedestrians, bicycle riders, and other users of the highway is recommended as a required subject for high school graduation.

C. Credit for the Course

Schools may grant students completing the Driver Education course 1/5 to 1/4 unit of credit when operating a complete course of classroom and behind-the-wheel training. Such a course involves a schedule for one period per week for one year or two periods per week for one-half year plus a minimum of 24 periods of which eight hours are behind-the-wheel instruction.

It is recommended that 1/4 unit of credit be given to those students who have completed both



classroom and behind-the-wheel instruction, and only 1/5 unit of credit be given to those students who have completed only classroom instruction.

It is further recommended that 1/4 unit of credit be given by schools which can accommodate all students in both classroom instruction and behind-the-wheel instruction, and 1/5 unit of credit be given by the schools providing only classroom instruction and by schools providing classroom instruction to a larger group than can be accommodated in behind-the-wheel instruction.

D. Organization for Learning Experiences within the Classroom

1. Driver education shall be offered as a regular course in the high school curriculum.
2. The organization of the classroom course shall consist of such activities as guided instruction based on systematically assigned readings, project work, and supervised field trips.
3. The size of the class for classroom instruction should not exceed thirty-five pupils.
4. It is essential that school districts provide texts and reference material. Film strips, motion pictures, psychophysical testing equipment, and other types of instructional materials should be available.
5. Tests to measure student achievement in both classroom work and practice driving shall be used during the course and at the end of the course. Each test shall be a learning experience for the student as well as a device to measure his progress toward specific goals.

E. Organization for Learning Experiences in Practice Driving According to the Standardized Program

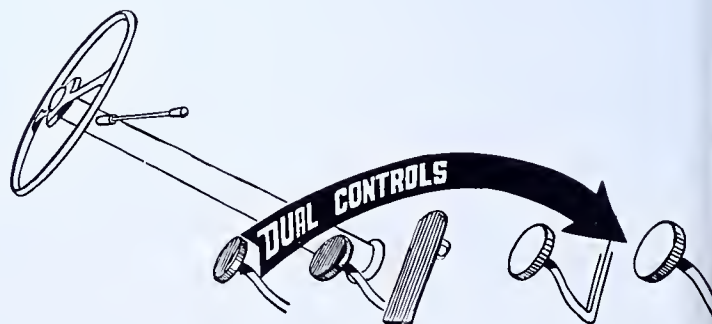
1. Practice driving should be so organized that each student enrolled in classroom instruction

who desires to enroll in practice driving shall receive instruction in an approved automobile in the art of safe operation of the motor vehicle concurrently with classroom instruction. When a conventional shift is used, the car shall be equipped with an extra clutch pedal and an extra brake pedal. When an automatic shift is used, the automobile shall be equipped with an extra brake pedal and accelerator release. If more than one car is used in the program, it is recommended that both standard shift and automatic shift automobiles be used.

2. It is recommended that practice driving shall be offered during regular school hours. Supplementary practice driving may be made available before and after the regular school day, on Saturdays, and during the summer months.

3. A pupil desiring to enroll in practice driving must obtain a learner's permit, or possess a valid operator's license issued by the Commonwealth of Pennsylvania, and present a permission card signed by the parent or legal guardian.

4. Pupils possessing learners' permits and desiring to enroll in practice driving shall receive an average of eight clock hours of practice behind the wheel exclusive of the time in the car as an observer. The standardized course is pri-



marily intended for the pupils holding a learner's permit; however, the pupils who have secured an operator's license can benefit from qualified, supervised practice driving and the technical content of the classroom work.

5. In the case of a pupil who has a valid operator's license and who is enrolled in classroom instruction and desires to enroll in practice driving, the amount of time and the number of periods shall be determined by the instructor.

6. When application for State reimbursement is made by the school district, the ratio of pupils holding valid operators' licenses to those pupils holding learners' permits shall not exceed 1 to 5.¹

7. Before any student is allowed to take practice driving instruction, his health card shall be checked to determine that his general physical condition is good and that he has no defect which would be a safety hazard. Any student taking practice driving instruction for whom a health card is not available should be required to have a medical examination and a statement signed by a physician to the effect that he is in good general health and has no defect which would be a safety hazard.

8. Practice driving instruction shall be conducted on a planned practice driving area selected in cooperation with the driver education instructor and his school administrator. It is recommended that a chart of this practice driving area be made and filed in the principal's office. (See School Code, Section 1519, page 5.) The early stages of instruction shall be done on little-used streets, enclosed areas, in city parks, or on private courses. The latter stages of instruction shall include driving in moderate traffic and on the open highway.

9. Practice driving instruction shall include the demonstration of and the actual practice in starting, stopping, shifting, steering, turning, backing, and parking together with the development of knowledge, attitudes, appreciation, and obligations involved in driving.

10. The following forms are helpful to both the instructor and administrator in connection with the standardized program: (See Appendix for samples)

- Preliminary schedule card
- Cumulative record card
- Physical examination report
- Instructor's individual check sheet
- Daily attendance report
- Driver education car's cumulative daily expense report
- Parental approval form
- Completion of course letter to parent

¹ Public School Code, Section 1519.1 as amended by Act 498, 1952. . . . The Department of Public Instruction shall assist . . . by making such rules and regulations as may be necessary. . . .



- Completion of course form for insurance company
- Award card
- Driver education yearly cost report
- Receipt form for return of driver education car
- Rubber stamp forms

F. Highway Safety and Driver Education as a Part of the Curriculum

The placing of a highway safety and driver education course in the school program is the responsibility of the individual school administrator. It is suggested that schools aim to cover the work in the units outlined herein, that the course be considered a part of the school curriculum in the same manner as a course in English, science, and other subjects; and that it be scheduled in the same way.

Careful scheduling in the assignment of classes will make possible the availability of teacher periods and pupil periods throughout the week.

PLANNING THE COURSE

In planning how the driver education course can best be fitted into the curriculum the school administrator will do well to consider:

1. Requirements of the standardized program
2. The school district
3. The enrollment of the school
4. Time allotment for the classroom and practice driving phases of highway safety and driver education
5. The number of teachers used in conducting the course

6. The number of cars available for practice driving instruction

The success of the course will depend to a considerable degree on:

1. The type of teacher selected; 2. The place of driver education in the curriculum; and 3. The amount of time provided.

In initiating courses in driver education it is possible for schools which have not yet secured all facilities necessary for the practice driving units, to begin with the classroom units. The administrator in his long-range plan, however, should include provision for practice driving instruction units as early as possible.

Several plans are suggested below for placing Driver Education in the curriculum. Other plans are acceptable if they meet the requirements of the Standardized Driver Education Program, developed in accordance with Section 1519.1 of the Pennsylvania School Code.

PLAN 1—AS A REQUIRED SUBJECT—A complete, separate course offered as a required subject for all students in a particular grade; classroom instruction taught one period a week per pupil for the school year with practice driving instruction taught during unassigned periods or during activities periods and, if necessary, before and after school and during the summer months. This program is recommended where different teachers are assigned for classroom instruction

and for practice driving instruction. One teacher should be responsible for the entire course. He could teach either all classroom instruction, or all practice driving, or both. Other responsibilities include deciding which pupils are eligible to take practice driving, making up pupils' schedules for practice driving, and being responsible for keeping all records and reports essential to the program.

PLAN 2—AS AN ELECTIVE SUBJECT—A complete separate course offered as an elective subject for students in a particular grade where the classroom instruction and practice driving instruction are taught concurrently by the same teacher for five periods per week for one semester—classroom instruction scheduled two periods a week and practice driving, three periods a week. This teacher's responsibilities for the total program are as in Plan 1.

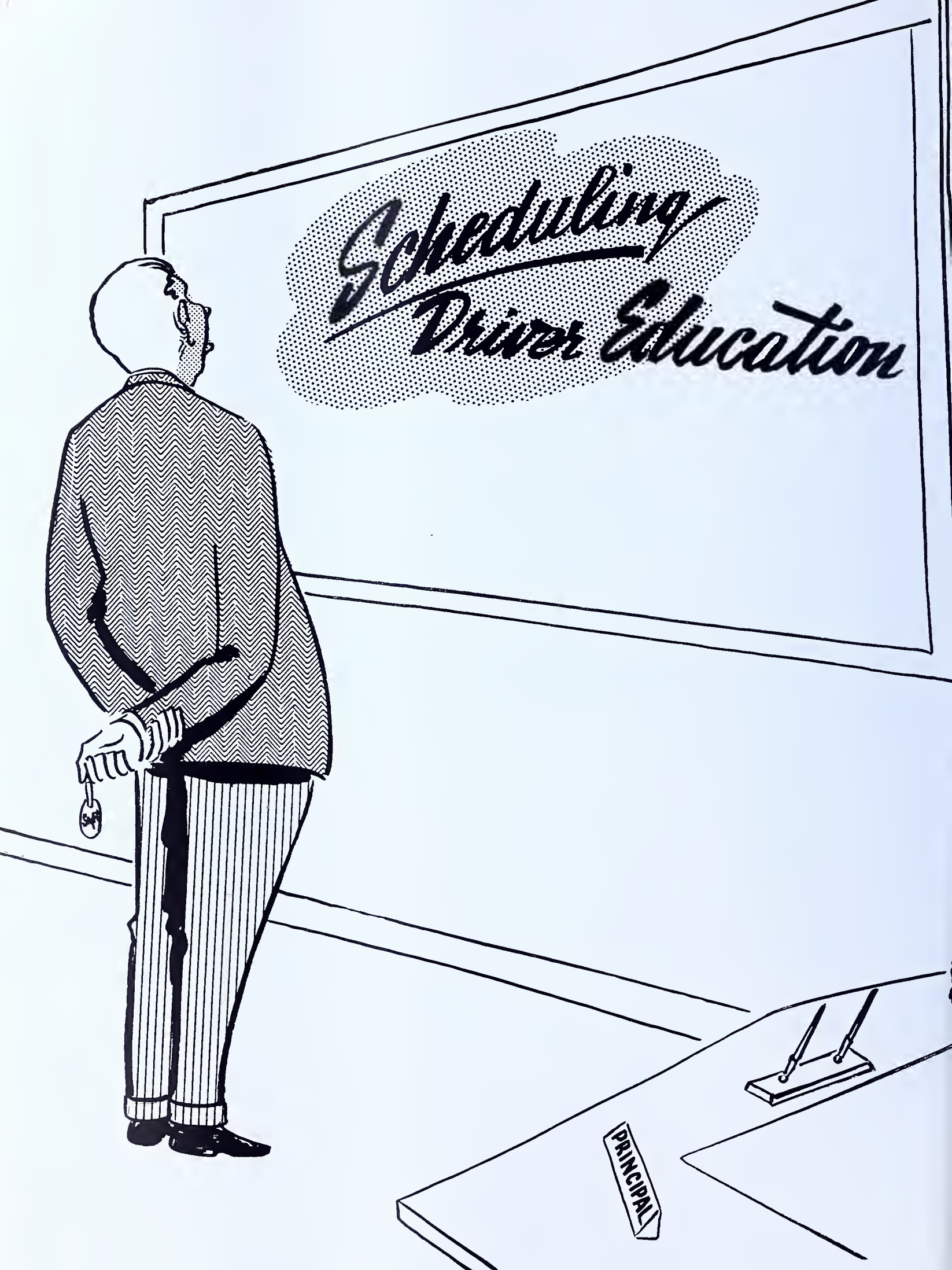
PLAN 3—AS A UNIT IN ANOTHER SUBJECT—A separate and distinct unit as a part of an existing subject, with scheduling patterned after Plan 1 or Plan 2.

PLAN 4—AS A COURSE BASED ON AGE—A complete course similar to Plan 1 or Plan 2, for any student approaching his or her sixteenth birthday. The scheduling of these students may present difficulties because of conflict in their scheduling, particularly because they will be eligible for the course from the ninth grade on.

CHAPTER III

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Organization of the Driver Education Program



CHAPTER III

Organization of the Driver Education Program

A. Materials and Equipment

Provision should be made in the school budget for driver education textbooks, visual aids, references, and other materials in the same manner as for other areas of instruction. Selection of materials should be based on:

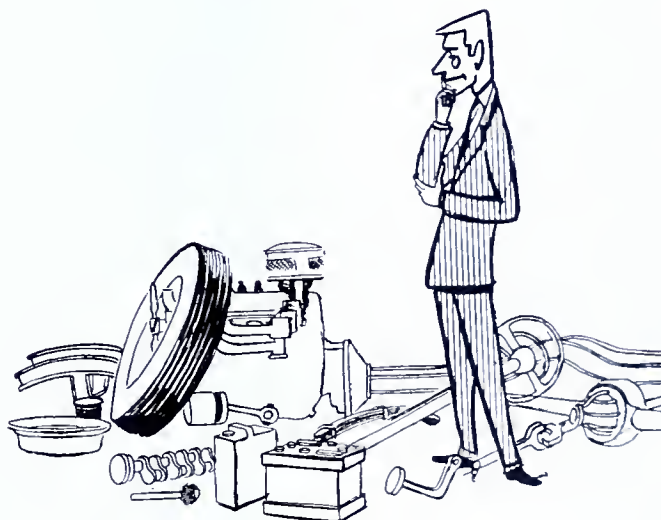
- | | |
|-----------------------------|--|
| 1. Pupil and teacher needs | 5. Attractive organization through the use of color, design, and illustrations |
| 2. Up-to-dateness | |
| 3. Reasonable cost | |
| 4. Objectives of the course | |

Various methods may be used in securing an automobile which is the standard equipment for the driver education course. The most common means are: 1. direct purchase, 2. loan-lease basis, 3. rental, or 4. gift from a community group.

Provision must be made by the school administrator in the following areas:

1. Insurance and Liability. Recommended minimum coverages are: (a) excess coverage on bodily injury liability, \$100,000-\$300,000; (b) property damage liability, \$10,000; and (c) medical payment, \$2,000
2. License
3. Garage
4. Service
5. Regulations for use of car. These regulations should be made available to all possible operators of the practice driving vehicle and kept on file for reference.
6. Title or lease arrangements
7. Layout of practice area. Copy should be kept on file in the administrator's office.
8. Cost, accident, and other pertinent reports
9. Identification—Seven-inch letters on the rear trunk lid should read STUDENT DRIVER.¹ There should be no commercial advertising; however, a courtesy credit line is permissible on a loan-lease car.
10. Control equipment (See page 37).
11. Other aids necessary for practice driving instruction and for testing of students.

¹ In compliance with policy procedure recommendations of Commission on Safety Education, NEA.



B. Qualifications of Teachers

The successful teacher of driver education and highway safety may have a background similar to that of almost any other person teaching the high school curriculum. However, a well-trained teacher of driver education is the key person in any successful driver education program. The trend in the nation is to develop higher standards of teacher preparation and certification requirements for such teachers. Many fine teacher education programs have been and are being developed in connection with driver education in our schools and colleges. Every effort should be made to select teachers who have a sincere interest in the general safety movement and who are eager to promote a successful program in highway safety and driver education.

A teacher of classroom driver education and practice driving should possess the following

qualifications and requirements as recommended by state and local authorities:

1. *Personal Traits*

Keen interest in safety	Tolerance in teaching
Above-average intelligence	Skill in evaluating attainments of youth
Breadth of social outlook	Mental and physical alertness
Respect for personality of others	Good health
Community-mindedness	Above-average coordination
Desire to broaden one's background	Rational behavior
Basic ability to teach	Maturity to command respect of youth
Cooperative attitude toward the youth of today	Even-tempered, sympathetic, and patient disposition

2. *Professional Preparation*

A college degree in the field of education
Basic highway safety and driver education courses

Above-average driving ability, valid driver's license, driving record free of repeated accident experiences or violations

Experience in driving a variety of vehicles used on our highways

Basic understanding of the mechanics of various vehicles

Meet DPI requirements for teacher certification in the field of driver education

The basic qualifications and requirements of the teacher of driver education should match those of any other high school teacher in order to meet all requirements prescribed by state or local authorities. In addition there are the special characteristics and abilities relating to the operation of an automobile. These can be developed by taking special courses and training in a certified teacher-preparation college or university, plus a certain amount of experience in the field. Some special qualifications are: a desire to obtain definite objectives in safety educa-

tion, including the ultimate improvement in traffic conditions and a reduction of highway accidents; an imaginative, experimental point of view; a definite desire to experiment in a comparatively new field of teaching; ability to work well with groups; and to speak at community meetings in order to publicize the program favorably.

3. *DPI Certification in the Field of Highway Safety and General Safety Education*¹

I. TEMPORARY STANDARD CERTIFICATE

A temporary standard certificate valid for two years will be issued to an applicant who meets the following requirements:

1. Holds a valid certificate to teach
2. Has completed three semester hours in the field of Highway Safety Education (Driver Education and Training) at an institution specifically approved for this type of preparation.

II. PERMANENT STANDARD CERTIFICATE

When the applicant has completed six semester hours (three semester hours in Highway Safety Education and three semester hours in General Safety Education) at an institution specifically approved for this type of preparation and has completed two years of successful experience in the field, the certificate will be made permanent.

III. EFFECTIVE DATE

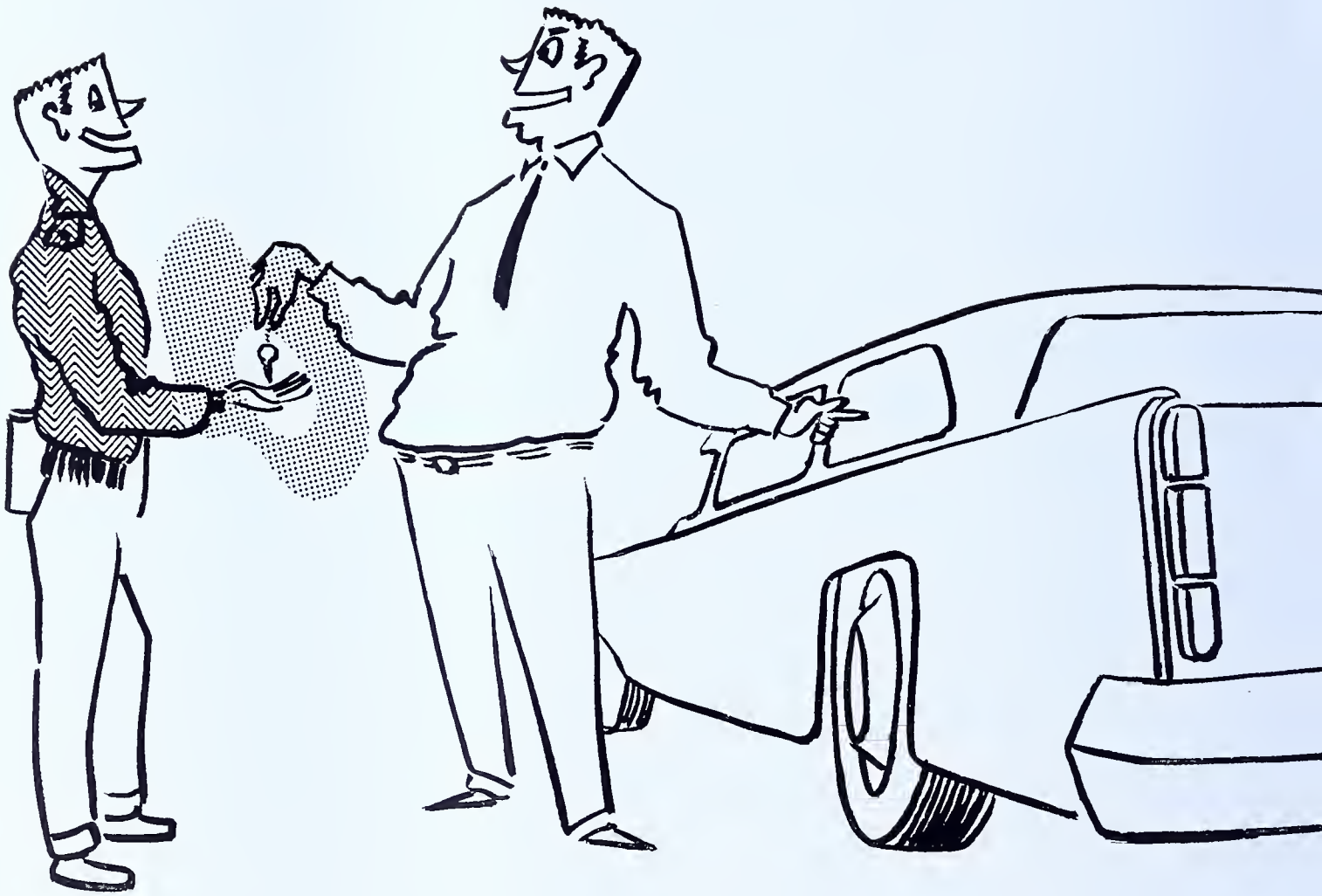
1. These regulations will be effective September 1, 1948.
2. Effective September 1, 1950, nine semester hours will be required in the field of Highway Safety Education (Driver Education and Training and General Safety Education) for the extension of a teacher's certificate to cover this field; in 1951, twelve semester hours will be required for the extension of a teacher's certificate to cover this field.

¹ Approved by the State Council of Education, January 9, 1948.

CHAPTER IV

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Evaluation of the Driver Education Program



Evaluation of the Driver Education Program

Evaluation is the process of making judgments that are used as a basis for planning. It consists of establishing goals, collecting evidence concerning growth or lack of growth toward socially desirable goals, forming judgments based on evidence, and revising procedures and goals in light of judgments. It is a procedure for improving the product, the process, and the goals themselves.

Evaluation in driver education is subject to the same evaluative principles and techniques as in any other school subject. It aims to determine in what ways and to what extent the long- and short-range objectives of the program are being achieved. It involves the examination of the administrative policies and instructional procedures, progress, and achievement of the student, and the continuing follow-up of the effectiveness of the driver education program.

This evaluation attempts to answer two questions:

1. What are we trying to do? (Objectives)
2. How well are we doing it? (Progress toward objectives)

A. Principles of Evaluation

All teachers of driver education should have an understanding of the basic principles of the evaluation process.

Evaluation is a continuous process by which each individual and group checks progress toward recognized, desirable, clear-cut goals. Evaluation should be a stimulation to improvement.

Evaluation is an integral part of administration, supervision, teaching, and learning.

Objective measurement and subjective evaluation are both necessary.

Methods of evaluation must be checked for their validity and reliability.

Evaluation must be comprehensive, including appraisal of such factors as philosophy, objectives, organization and administration, extent

and quality of supervision, teacher preparation and certification, direction of learning—including activities, methods, and materials, physical facilities, student program and achievement, extent of participation, time elements, costs, outcomes, and innumerable other considerations.

Evaluation must be a cooperative enterprise involving pupils, teachers, administrators, parents, community groups, professional teacher organizations, research workers, boards of education, and the State Department of Public Instruction. It is handled best by a cooperating group.

B. Methods of Evaluation

Numerous methods of evaluation are available to teachers and others interested in the driver education program. Informal as well as formal means are needed to get a comprehensive picture of the program. Some of the means which may be of service follow:

- Observations (classroom and practice driving)
- Anecdotal records
- Surveys
- Interviews
- General meetings and individual conferences
- Opinion polls
- Listings (e.g., desirable changes)
- Questionnaires
- Estimates (e.g., conformity to standardized State program)
- Rating scales
- Check lists
- Photographs, graphs, charts, etc.
- Motion pictures
- Psychophysical tests
- Informal tests (teacher-made)
- Standardized tests (commercially purchased)
- Skill tests
- Stenographic reports
- Accident records and trends
- Arrest records and trends
- State driving examinations
- Special studies
- Research projects and analyses

C. Research in Evaluation

The importance of research in driver education cannot be overemphasized. It is much needed to explore and clarify numerous issues in this comparatively new subject of education.

Research of a carefully planned and controlled nature in the field or in the laboratory will give substance and stature to the subject of driver education. This type of research must be conducted by trained individuals or research teams. It should lead to recommendations for the improvement of the program and to additional experimentation and research. Research must go on continuously if the subject of driver education is to progress and reach its maximum potential.

Not all research in driver education, however, need be of the formal type carried on by college or university research workers. There is a definite place for the less formal type of research which may be conducted by driver education teachers or others, "just to find out" about some phase of the program. This type of research is

known as action research or community-action research. It may be considered mainly as a teaching-learning method of attacking day-by-day questions and problems. It attempts to help teachers, students, and others to arrive at conclusions based on fact rather than on hearsay, tradition, or opinion. This type of practical research will contribute much to general thinking and to the improvement of the driver education program.

Much motivation to encourage research of both the formal and informal types has been given by the National Safety Council, the National Commission on Safety Education, the Department of Public Instruction, universities, colleges, and public and private organizations. These groups have listed current research needs in the field. Teachers and others are urged to secure these lists for research purposes.

Individual and cooperative endeavors in research in which teams of students, teachers, administrators, research specialists, and others collaborate are vigorously encouraged.

D. Evaluation Check List

1. *Classroom Instruction*—Provision should be made for systematic classroom instruction on the

subject of driver education to aid in achieving the general purpose of highway safety education.

Yes	No	
.....	1. The school district provides for the classroom teaching of driver education in the high school.
.....	2. There is one person in supervisory charge of all highway safety education in the high school.
.....	3. The school district employs fully certificated teachers.
.....	4. The course in driver education is required of all students in the junior year or at the legal driving age of sixteen years.
.....	5. The course in driver education provides for a minimum of thirty (30) hours of classroom instruction.
.....	6. Driver education is offered as a regular and as a separate course in the school curriculum.
.....	7. A special room with adequate equipment is provided for driver education.
.....	8. Scholastic credit is given for the course in driver education in the high school.
.....	9. The school district makes provision for the necessary psychophysical equipment.
.....	10. Course organization provides for classwork consisting of discussions, assigned reading, project work, and supervised field trips.
.....	11. The school provides essential texts and reference books for classes in driver education.
.....	12. The school has prepared a course of study in driver education.
.....	13. The plan of work is reviewed and revised each year.
.....	14. Filmstrips, motion pictures, and other types of visual aids are available for the teaching of driver education.
.....	15. An organized file of unbound information on driver education is maintained in the high school library.

2. *Practice Driving*—Provision should be made for learning-by-doing experience under actual driving conditions through a course in practice driving instruction to aid in achieving the general purpose of highway safety education.

Yes	No	
.....	1. The school district provides practice driving instruction in automobile driving.
.....	2. Fully certificated teachers are employed for practice driving instruction.
.....	3. The school district provides cars equipped as specified in the standardized program at the rate of one car for each 150 eligible pupils or fraction thereof.
.....	4. The school employs the instructor on a year-round basis.
.....	5. Practice driving instruction is offered during regular school hours.
.....	6. Practice driving instruction is taught concurrently with classroom instruction.
.....	7. Periods of practice driving are scheduled not less than 3 times a week.
.....	8. An average minimum of 8 hours per student for actual driving, exclusive of time in the car as an observer, is provided.
.....	9. Practice driving instruction is conducted on a planned driving course, selected by the board of school directors or by the principal of the school.
.....	10. Streets used in practice driving instruction are barricaded.
.....	11. Proper road markings are painted on the course used for learning experiences in practice driving.
.....	12. Students have practice driving in moderately congested traffic areas, on main highways, and in night driving.
.....	13. All training cars are covered by adequate insurance.
.....	14. The training car or cars have been purchased by the school district.
.....	15. The school district pays the entire cost of the course in driver education.
.....	16. Cost records on driver education and practice driving are kept on file.
.....	17. Follow-up records of former pupils are used in reorganizing and adjusting the program to meet the needs of the individual driver.
.....	18. Students have a learner's permit issued by the Commonwealth of Pennsylvania, and a permission card signed by the parent or legal guardian before receiving practice driving instruction.

3. *Teaching Methods*—It is also important for teachers to conduct a continuous evaluation of their methods, procedures, and testing for outcomes. The following suggestions can act as reminders of methods that they may employ in imparting knowledge, skills, and attitudes in highway safety education.

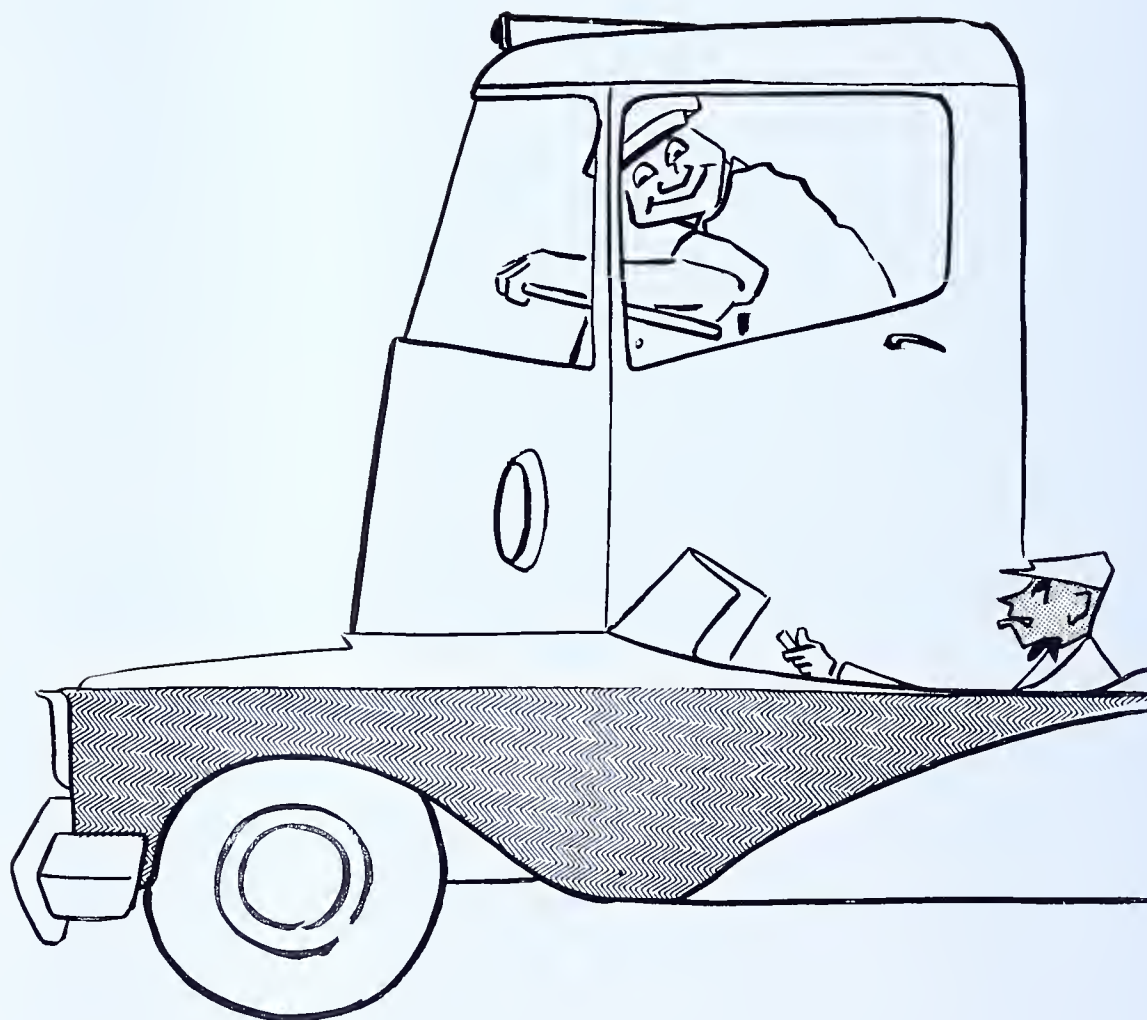
Yes	No	
.....	1. Are students familiar with up-to-date audio-visual aids and are these aids useful in the learning process?
.....	2. Are students familiar with the right terminology in highway safety?
.....	3. Are workbooks used to enhance learning?
.....	4. Are students given the opportunity to give oral reports on pertinent subjects of particular interest to them?
.....	5. Are models used in teaching special skill techniques and in showing principles of operations?
.....	6. Are panel discussions used to present varying points of view and to improve class discussions?
.....	7. Are student opinions respected in class discussions?
.....	8. Are committees active in the special areas of highway safety, such as school patrols, parking, bus patrols, student use of private cars, etc.?
.....	9. Are there teen-age problem discussions in relation to teen-age conferences in their area?
.....	10. Are the students acquainted with supplementary materials in highway safety that will enrich their classwork?

<i>Yes</i>	<i>No</i>	
.....	11. Are students with superior skills used to demonstrate the right practices in the operation of the car?
.....	12. Are students given a chance to take as much responsibility as they can handle in traffic situations?
.....	13. Are students familiar with the objectives of highway safety and its social and economic implications?
.....	14. Are current events used in a practical way in classroom discussions?
.....	15. Are standards for highway safety education emphasized in the classroom?
.....	16. Are students familiar with the outline of the course and methods used?
.....	17. Are written reports used to get students to do elementary research?
.....	18. Are the students familiar with the frequent use of the blackboard to illustrate problems?
.....	19. Are students given the opportunity to hear and see qualified outside speakers?
.....	20. Are students given an opportunity to make traffic studies and work on various traffic problems?
.....	21. Are field trips to garages, auto shows, etc., used when feasible?
.....	22. Are students familiar with the various evaluation tests: objective, standardized, essay, exploratory, and open-book tests?
.....	23. Are students urged to evaluate their learning; to make personal checks of scored tests?
.....	24. Are students familiar with their own scores on psychophysical tests?

CHAPTER V

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Procedures for Good Classroom Instruction



CHAPTER V

Procedures for Good Classroom Instruction

Introduction—Methods, Devices, and Techniques for Classroom Instruction

Teachers should select methods, devices, and techniques of instruction for their effectiveness in achieving progress toward the desired objectives that have been established. It is essential for a teacher to be skillful in a variety of techniques and procedures in order to motivate and maintain interest as suggested below:

1. Teacher presentation
2. Class discussion
3. Teaching aids
 - a. Charts
 - b. Models
 - c. Mock-ups
 - d. Motion pictures
 - e. Still pictures
 - f. Magnetic boards
4. Pupil projects
 - a. Surveys (stop sign, courtesies, etc.)
 - b. Models (clutch, transmission, etc.)

5. Student discussion panel
6. Working in small groups (committees)
7. Field trips
 - a. Juvenile traffic courts
 - b. Garages, emergency vehicles
 - c. Highway departments
 - d. Teen-age conferences
 - e. Dealer's showroom
8. Visiting specialists
 - a. Law enforcement officers
 - b. Insurance representative
 - c. Optometrists
 - d. Medical representative
 - e. Safety directors
 - f. Traffic engineers
9. Demonstrations
 - a. Simulated driving skills
 - b. Traffic situations
 - c. Laws of nature
10. Evaluation and reteaching

UNIT I.—MOTOR VEHICLE TRANSPORTATION AND ITS EFFECT ON MODERN LIVING

The motor car, a relatively new factor of the power age, has produced revolutionary changes in our pattern of daily living. It has made it possible for us to travel rapidly to many places and has facilitated efficient transportation of varied commodities. These benefits have not come without complications. The effects from the social and economic viewpoint are staggering.

Teacher Objectives

1. To create an awareness of man's social responsibility in relation to the changes that have come with the power age
2. To develop an appreciation of the changes made in the automobile since its early days
3. To provide information about the automobile of value to the future driver

4. To provide an understanding of the many job opportunities that result from vehicle transportation
5. To provide an understanding of the nature and requirements of the various types of job opportunities available
6. To develop the knowledge, skills, and attitudes necessary to prepare students for suitable job opportunities.

A. RISE OF THE MOTOR INDUSTRY

The story of the invention and development of the motor car from the crude steam carriage used to haul cannon to the present-day sleek, speedy, stream-lined automobile runs parallel with the story of the growth and development of America.

Essential Learnings

1. Historical development of the motor vehicle
 - a. Early types and models
 - b. Pioneers in the American automobile industry
 - (1) Charles and Frank Duryea
 - (2) Gottlieb Daimler
 - (3) R. E. Olds
 - (4) Henry Ford
 - c. Development of large automobile companies
2. Troubles of early motorist
 - a. Unreliable automobiles
 - b. Bad roads
3. Improvements in the motor car
 - a. Closed bodies
 - b. Improved transmission
 - c. Multicylinder engines
 - d. Four-wheel brakes
 - e. Better tires
 - f. All-steel body construction
 - g. Lower center of gravity
 - h. Streamlining
 - i. Other improvements
 - (1) Steering ratios
 - (2) Safety glass, etc.
4. Research

Suggested Activities

1. Form a panel to investigate and discuss before the class:
 - a. Early inventors in the automobile industry
 - b. Some of the early automobiles
 - c. An automobile trip in the early 1900's
2. Divide the class into groups to visit the showrooms of the new car dealers of the community. Ask the salesmen to point out the new features on the latest models. Which new features did you observe that contribute to greater comfort? Ease of driving? Greater safety?
3. Prepare a chart showing the increase in motor car registration, drivers, speed and power of cars, and gasoline consumed. How would you interpret this chart? What predictions might you make about the future?
4. Interview one of the officers of your local police department. Find out the history and problems of traffic law enforcement in your community.
5. Assume that the average person drives his car 10,000 miles a year at an average speed

of thirty miles per hour, how much time does he actually spend behind the wheel? Compare this with the time spent in other activities such as eating, sleeping, reading, etc.

Discussion

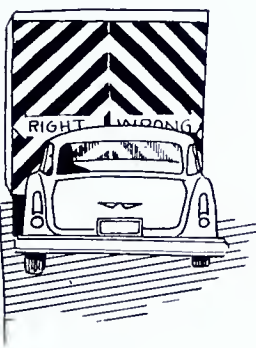
1. "Today's automobiles are not as good as those made 20 years ago." Do you agree or disagree with this statement? Support your views with facts.
2. Do you agree with the statement "No one man invented the automobile; it is a composite of many inventions?" Support your opinion with a general account of the development of the motor car as we know it.
3. Describe the major trends in the development of the automobile industry. Do you think the American people are getting the kind of car they want? Give reasons for your answer.
4. Why are manufacturers building automobile engines with increased horsepower? Do you think these reasons are good? Why?
5. What facts can you give to prove that the manufacture of automobiles is one of the nation's leading industries? Show the importance of the automobile industry in relation to the industrial welfare of the United States.

B. THE CHANGING HIGHWAYS

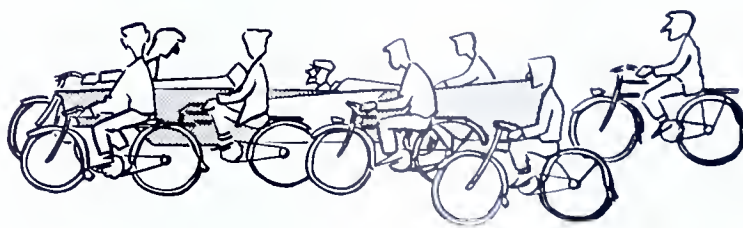
Motor vehicle travel now covers a half trillion miles annually. Our highway system has not kept pace with the needs of this ever-growing stream of traffic due to material shortages, inflationary costs, and diversion of taxes collected from motorists to uses other than highway improvement and the building of new highways.

1. Origin and development of roads
 - a. Indian trails
 - b. Animal trails
 - c. Ox roads
 - d. Mule roads—pack and train
 - e. Post roads
 - f. Toll roads
 - g. Pikes
 - h. Plank roads
 - i. Gravel roads
2. Road foundation
 - a. Early Roman road construction
 - b. Early English roads

3. Types of surfacing
 - a. Wood
 - b. Gravel
 - c. Sand and clay
 - d. Stone — chipped — crushed
 - e. Asphalt—tar—oil
 - f. Macadam
 - g. Brick — stone — wood block
 - h. Concrete
4. Road widths
 - a. Single lane
 - b. Double lane
 - c. Multilane
 - d. Divided highways
5. General construction
 - a. Cross sections
 - (1) Flat
 - (2) Crowned
 - (3) Banked curves
 - b. Sight distances
 - (1) Older roads
 - (2) Newer roads
6. Other improvements
 - a. Elimination of culvert head walls
 - b. Replacement of narrow bridges
 - c. Elimination of deep side ditches
 - d. Wider, firmer shoulders
 - e. Gentle side slopes (guard rails unnecessary)
7. Improvement of intersections
 - a. Traffic circles
 - b. Grade separations
8. Road administration
 - a. Highway financing
 - b. Taxation
 - c. Maintenance and repair
9. Traffic accidents (national, state, local)
 - a. Types of traffic accidents
 - b. Extent and cost
 - c. The accident pattern
 - (1) Hour, season, and other time factors
 - (2) Locations
 - (3) Weather and visibility conditions
 - d. Causative factors
 - (1) Driver error—%
 - (2) Mechanical defects in vehicles—%
 - (3) Defects in streets and highways—%
10. Accident toll
 - a. Acts of drivers which most frequently result in accidents:
 - (1) Driving too fast for conditions
 - (2) Failure to yield the right of way



- (3) Driving after drinking
 - (4) Failure to keep to right of center line
 - (5) Improper passing
 - (6) Ignoring traffic officer or traffic control devices
 - (7) Following too closely
 - (8) Erratic lane-changing
 - (9) Driving while ill, fatigued, or otherwise unfit
 - (10) General recklessness
- b. Pedestrian acts most frequently resulting in accident in urban areas:
 - (1) Crossing street without checking traffic
 - (2) Crossing between intersections
 - (3) Crossing against lights
 - (4) Walking in street instead of on sidewalk
 - (5) Running into or playing in street
 - (6) Leaving buses, street cars, or automobiles improperly
 - c. Pedestrian acts most frequently resulting in accidents in rural areas:
 - (1) Walking on pavement of road instead of on the shoulder
 - (2) Walking with, instead of against traffic
 - (3) Failure to wear some light article of clothing or to carry a light
 - (4) Walking two or three abreast on roadway
 - d. Acts of bicyclists most frequently resulting in accidents:
 - (1) Riding in center of roadway instead of keeping close to curb or shoulder
 - (2) Failure to have lights on bicycle
 - (3) Riding passengers on handle bars, crossbars, etc.
 - (4) Failure to look and signal before turning
 - (5) Riding two or more abreast in street
 - (6) Zigzagging and stunting
 - (7) Riding against traffic



- e. Road defects most frequently causing accidents:
 - (1) Obstructions to clear view
 - (2) Narrow roads
 - (3) Holes in roadway
 - (4) Sharp turns
 - (5) Narrow bridges and underpasses
 - (6) Slippery or bumpy roadways
 - (7) Steep grades
 - (8) High-crowned roadways
 - (9) Uncontrolled intersections
- f. Vehicle defects most frequently causing accidents:
 - (1) Steering mechanism
 - (2) Brakes
 - (3) Tires
 - (4) Lights
 - (5) Windshield, windshield wipers, defroster
 - (6) Exhaust system (carbon monoxide poisoning)

11. Parking

- a. Responsibility for parking facilities:
 - (1) City government (2) Businessmen
- b. Types of parking:
 - (1) Meters
 - (2) Parking lots—private and public
 - (3) Parking garages
 - (a) Open-deck (b) Multiple-story
 - (c) Semi-automatic (d) Pigehonhole (e) Push-button ramp
- c. Bans on parking
- d. Special shoppers' buses to eliminate parking problems
- e. Curb services:
 - (1) Bank (2) Supermarkets
 - (3) Drive-in theatres (4) Post office
 - (5) Libraries
- f. Paid parking fees
- g. Suburban shopping centers with parking areas
- h. Moving industry away from cities to relieve parking congestion

Suggested Activities

1. If there are parking meters in your community, send a student to the city clerk or police chief to secure the answers to the following:
 - a. How many parking meters are there in the community?
 - b. What length of parking time is permitted?
 - c. What hours of the day are the meters in use?

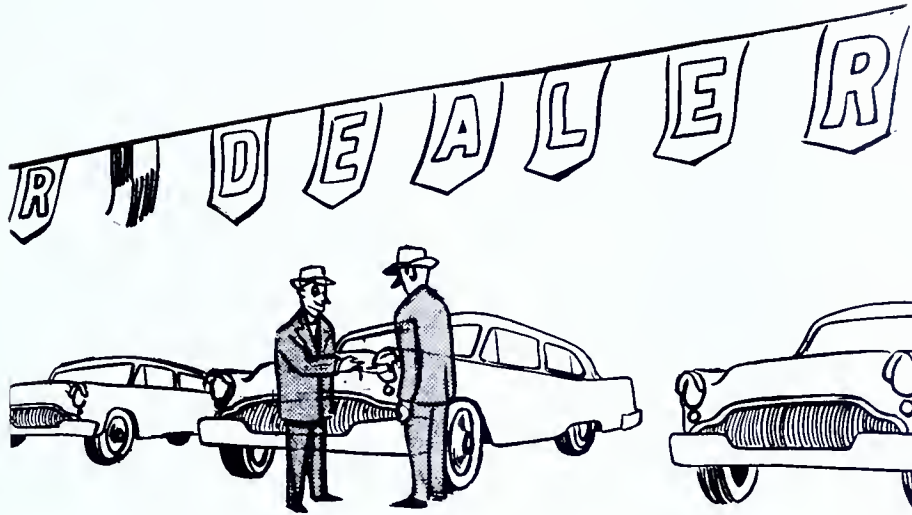
d. What is the annual income from parking meters?

e. How is this income used?

2. Make a collection of pictures from newspapers and magazines showing various types of automatic-parking garages or underground garages. Place them on the bulletin board or use a projector to show them to the class.
3. Draw a graph showing the number of people killed or injured in traffic accidents in your community during the last five years. What trends are indicated? How can such trends be explained? If the present trend continues, approximately how many people will be killed this year?
4. Make a survey of your community to determine:
 - a. The number, type, and condition of fixed warning signs
 - b. The number of cars passing through certain intersections
 - c. Conditions which seem to justify signal lights or improved traffic control devices

Discussion

1. Trace the outstanding periods of road development in this country from the early 1800's to the early 1900's. What was the cause for each stage of road building and road improvement during this period?
2. In what ways do congested streets add to the expense of motoring?
3. What are some of the problems which highway engineers must consider when they plan highway improvements? How can these problems be solved?
4. Who pays for the construction and maintenance of streets and highways? Explain how this money is obtained? What suggestions can you make for raising the additional money needed to finance adequate streets and highways?
5. State what arguments you can think of to support the statement: "Maintenance and repair of our present highways is a continuous and expensive undertaking."
6. Make a list of discourteous acts of which some drivers are guilty on hills; on curves; on straight, level roads. Discuss these discourtesies and decide which are the most serious.



C. AUTOMOBILE CONSUMER EDUCATION

Suggested activities

1. Report on financing plans for the purchase of new cars.
2. Set up a form upon which to record the costs, on weekly or monthly basis, of operating the family car. Keep this record for a definite time. What do you find is the cost per mile?
3. Report on what you can find out about the practices of dishonest used car dealers in "reconditioning" cars.
4. Collect and compare automobile manuals intended for the consumer.
5. Interview consumers to ascertain the factors that determined their choice of an automobile.
6. Make a list of practical ways of preserving the value of your investment in a car.
7. Some good drivers do not believe it necessary to change engine oil as frequently as the lubrication chart recommends, provided their cars have good oil filters. Check up carefully on this matter and discuss the conclusions with your group.
8. Examine and report on:
 - a. New car guarantees
 - b. Used car guarantees
9. Report on ways of honestly reconditioning cars.
10. Appoint a committee to prepare a guide book to aid motorists in keeping their cars in safe driving condition.

Discussion

1. To what extent are the expenses connected with the owning and driving of the family car among the heaviest family expenses?
2. What are the things a buyer should be careful about in the guarantee that goes with his car?
3. What future trouble spots may not easily show up on first examination of a used car? How can you discover them?
4. Discuss the value from the viewpoint of economy of keeping the proper pressure in the tires?
5. Explain the inspection and maintenance required for brakes, lights, horn, steering, cooling system, lubrication system, and ignition system. Indicate why periodic maintenance is a factor for economy in car operation.



D. CAREERS IN MOTOR TRANSPORTATION

Suggested activities

1. If you are interested in some phase of motor transportation, try to rate yourself in regard to the personal qualifications needed for the particular type of job you have in mind. For which type of job do you consider yourself best fitted?
2. Find out the average incomes for truck, bus, and taxi drivers. How do these incomes compare with the income of the average worker?
3. Examine Interstate Commerce Commission regulations and report on some of the requirements as to:
 - a. Qualifications of drivers
 - b. Driving practices
 - c. Reporting of accidents
4. If there is a traffic engineer in your community invite him to talk to the class on the

nature of his work and the requirements for a person entering his profession.

Discussion

1. What do commercial driving jobs offer in the way of opportunity? Income? Advancement? Stability? Security?
2. What type of applicants should be screened out of commercial driving jobs?
3. Discuss jobs in which driving or experience in driving is essential.
4. Name some of the nondriving jobs with trucking and bus companies. Specify the qualifications needed for each type of job.
5. Describe the characteristics a person should possess if he plans to become a driver education teacher. What special training should he have?

UNIT 2.—THE LAWS OF NATURE

Some of the laws governing sound driving practices are man-made; others are the physical laws that govern the action of moving vehicles. These laws have such an important effect on driving that it is impossible to drive intelligently unless they are understood.

Teacher Objectives

1. To develop in students a respect for nature's laws
2. To teach the advantages of recognizing and adjusting to nature's laws
3. To illustrate the need for a knowledge of science and mathematics
4. To appreciate the effect of environmental factors on motor operation

Essential Learnings

1. Friction
 - a. What is it?
 - b. Where available for car control?
 - (1) Tires, road surface, tire pressures
 - (2) Brakes—brake shoe and drum—hydraulic system (Pascal's Law)
 - (3) Road surface
 - c. When is friction useful?
 - (1) Starting—two wheels
 - (2) Stopping—four wheels
 - a. Effect on uneven roads
 - b. Effect in snow, ice, mud, sand
2. Coefficient of friction
 - a. What is coefficient?
 - b. How obtained? $CF = \frac{F}{W}$

Suggested Activities

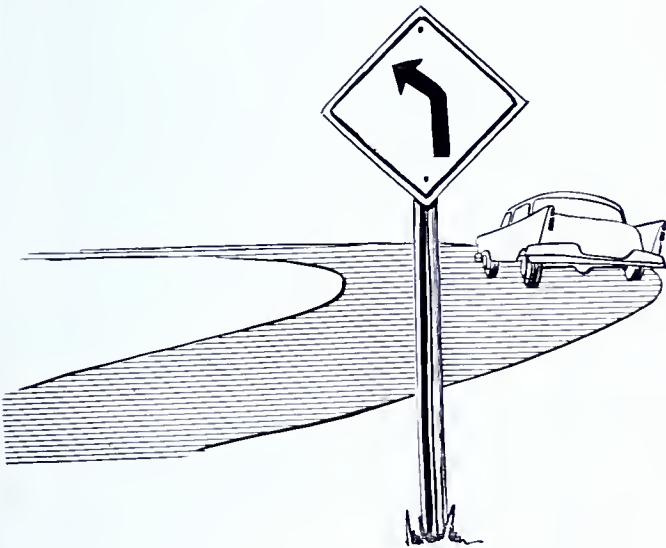
1. Place a miniature model car on an adjustable phonograph turntable. Rotate the table slowly. Gradually increase the speed of the table. A point will be reached to which centrifugal force overcomes friction pulling the car off the table. Repeat the activity, placing the car at various distances from the center of the table.
2. Obtain several segments of various types of tires, a five- or ten-pound weight and a spring scale. Pull various tire segments over different types and conditions of surfaces. Record the force necessary to pull the segments, plus the weight in each case. Use level, uphill, and downhill surfaces. Use formula $CF = \frac{F}{W}$ and solve.

F = force in pounds required to pull a car with wheels

W = weight of the car in pounds

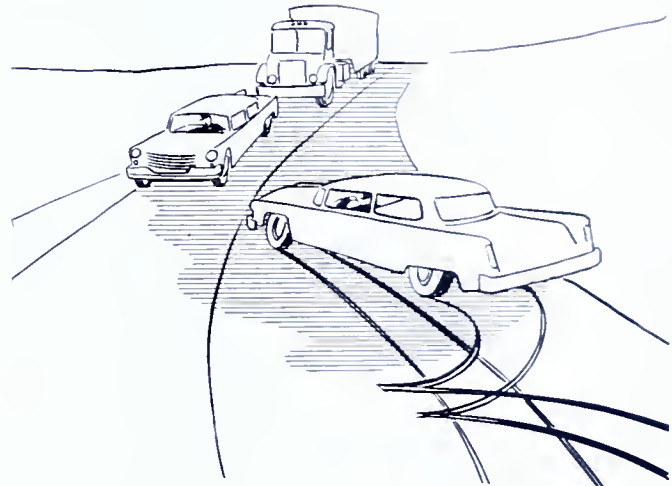
CF = centrifugal force

- c. Coefficient of friction table
 - d. Compensations for coefficient of friction:
 - (1) Slow speed
 - (2) Good tires
 - (3) Brakes in excellent working condition
 - (4) Tire pressures
 - (5) Hydraulic system (Pascal's Law)
 - e. Skidding:
 - (1) Causes
 - (2) Prevention
3. Centrifugal and centripetal force
- a. What are they?
 - b. How do they affect driving?
 - c. What increases centrifugal force:
 - (1) Speed of car
 - (2) Sharpness of curve and grade
 - d. What counteracts centrifugal force: Friction
 - e. What counteracts centripetal force:
 - (1) Proper banking of curves
 - (2) Reduced speed
 - (3) Equipment in good condition

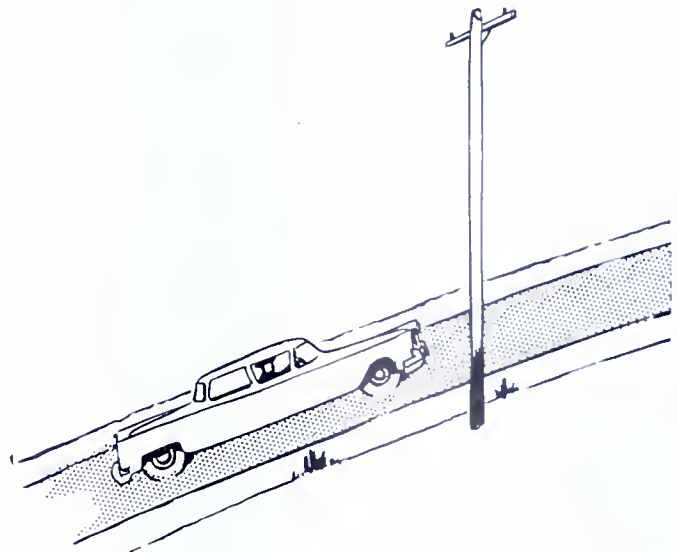


4. Gravity

- a. What is it?
 - b. Effect of gravity:
 - (1) Going uphill—gravity pulls car down
Counteracted by friction and power of the car
 - (2) Going downhill—gravity pulls car down
Approach to crest of hill
 - c. Meaning of 32 feet per second in relation to gravity
5. Kinetic energy, momentum and impact
- a. What are they?
 - b. How are they calculated?



3. With the cooperation of the Art Department, draw schematic diagrams showing the forces of nature acting on a motor vehicle in the following situations:
- a. Starting
 - b. Stopping
 - c. Rounding a curve on:
 - (1) A level road
 - (2) A crowned road
 - (3) A banked road
 - d. Driving uphill
 - e. Driving downhill
4. With the cooperation of the Industrial Arts Department, cut a block of wood with a square base and with a height five times its width. Stand the block on end on a level board laid on the floor of the car with one side of the block parallel to the direction of the car movement. Drive at various speeds on curves of different sharpness and determine the maximum speed at which you can take each curve without upsetting the block. Try the same experiment with blocks of different dimensions and higher and lower centers of gravity.
5. Demonstrate with detonator the relationship of speed to reaction distance, braking distance, and stopping distance.



- c. Impact dependent upon momentum and character of object struck

- (1) Brick wall
- (2) Bushes
- (3) Moving car

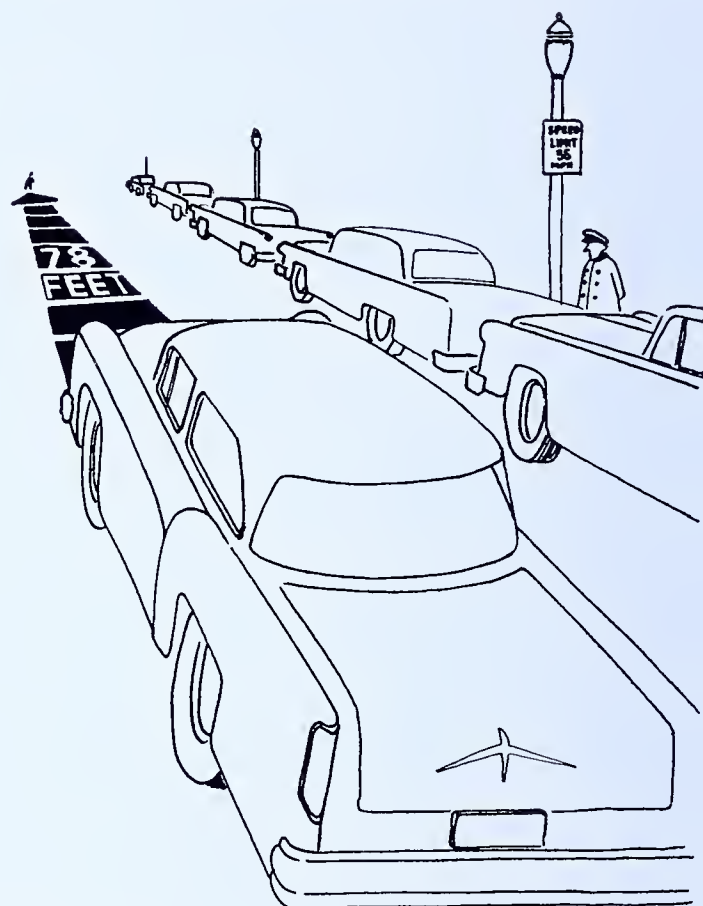
- d. "Rocking" the car

6. Stability

- a. What is stability?
- b. Importance in a car
- c. Increasing stability in cars
 - (1) Lower center of gravity
 - (2) Increase weight of car
 - (3) Increase length of wheel base
 - (4) Increase width between wheels

7. Stopping distance

- a. What is stopping distance?
- b. Reaction time and distance
 - (1) What are they?
 - (2) Their effect on driving
 - (3) Individual differences—range, variations, average
 - (4) Their effect on stopping distance
- c. Braking time and distance
 - (1) What are they?
 - (2) Their effect on driving
 - (3) Table of braking distances
 - (4) Effect on stopping distance
- d. Development of correct safety habits
 - (1) Practice correct procedures regularly
 - (2) Result increases speed of reaction



6. In cooperation with the Art Department, draw up several situations in which the natural forces can easily result in serious accident. Show in each case how an appreciation of the natural force could prevent the accident.
7. Suggest models, diagrams, mock-ups, etc.. to aid in teaching:
 - a. Centrifugal force
 - b. Force of impact
 - c. Gravity
 - d. Friction
8. Mock-up of hydraulic braking system
9. Allow metal ball to roll down an incline plane set for various grades and strike a block. Note and measure the impact of movement caused by the impact.

BASIC REFERENCES

Your High School Physics Text

Speed Regulations and Control on Rural Highways

Highway Research Board, Washington, D. C.

Vehicle Code of Pennsylvania

Department of Revenue, Bureau of Highways, Harrisburg, Pennsylvania

SUGGESTED TEACHING AIDS

Practice Makes Perfect Drivers, Film—10 min., General Motors Corporation—See Local Dealer or write Film Distribution Section, General Motors Bldg., Detroit 2, Michigan

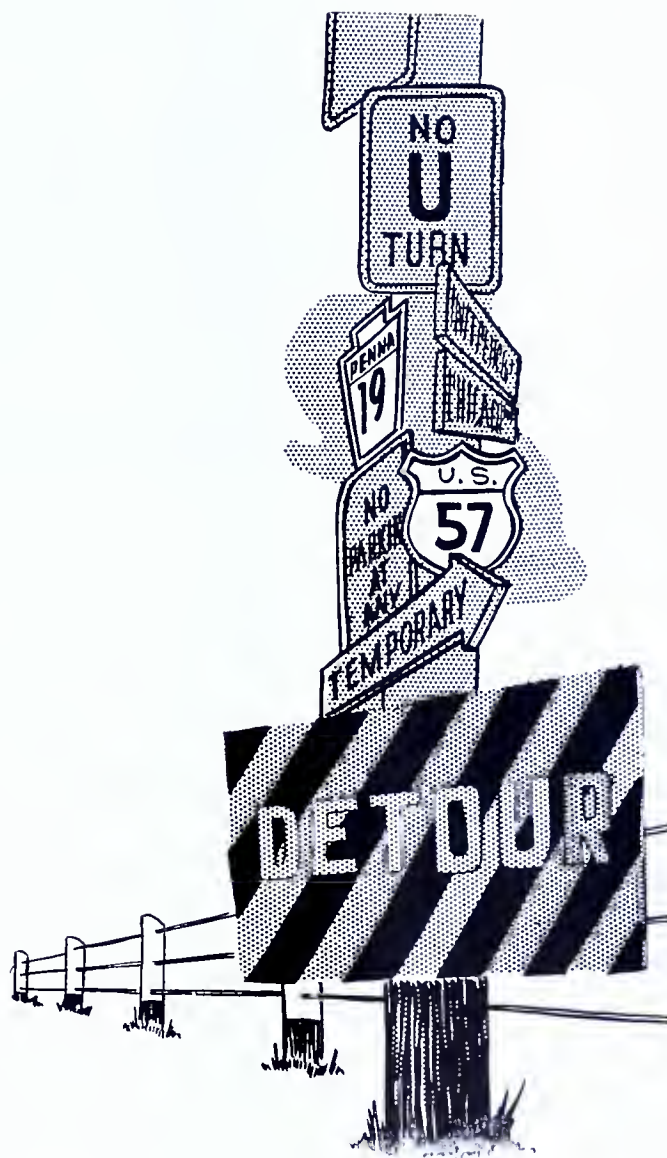
Speed and Reflexes, Film—11 min., Progressive Pictures, 635 Thornhill Drive, Oakland 11, California

UNIT 3.—MAN-MADE TRAFFIC LAWS

Driving rules were not invented; they grew quite naturally from customs and habits of the horse-and-buggy period. Sound, uniform, up-to-date traffic regulations are a *must* in this age of rapidly increasing hazards and changing traffic conditions. A good driver voluntarily obeys these rules and recognizes that the only difference between a so-called "minor violation" and a fatal accident is usually a split second and a lot of luck. In a democratic society a privilege has its responsibilities and obligations; therefore anyone who claims the privilege of driving without also assuming its responsibilities and obligations is taking something that does not belong to him.

Teacher Objectives

1. To create an appreciation of the necessity for rules and regulations governing traffic
2. To show the need for new and better regulations
3. To show that uniformity in traffic laws is desirable
4. To acquaint the driver with signs, signals, and markings provided for safety
5. To explain the penalties which follow violations and to instill respect for those whose duty it is to enforce them
6. To teach the laws and regulations which, if followed, will help reduce accidents
7. To formulate new laws and regulations which, if adopted, would probably help to reduce accidents
8. To teach youth discipline and regard for laws through driving
9. To develop a real desire to obey man-made traffic laws



Essential Learnings

1. Reasons for traffic rules
 - a. To promote uniform driving practices
 - b. To give some assurance of controlled power on the highways, particularly when in the hands of irresponsible drivers
 - c. To serve as guides for all those who want to drive correctly
2. Who makes the traffic laws?
 - a. Cities
 - (1) Parking
 - (2) Stops at intersections
 - (3) One-way traffic

Suggested Activities

1. Using models, demonstrate correct and incorrect procedure in various traffic situations.
2. Give illustrations of the variations in uniformity in traffic regulations in different localities. Why has such a situation developed? Show how the lack of uniform traffic laws and regulations affects observance.

- b. State
 - (1) Registration of car—certificate of title, bill of sale
 - (2) Operator's License
 - Learner's Permit—age, fee, time when valid
 - Operative License—test on skill, knowledge, physical fitness
 - (3) Re-examination for license—report of violation, physical defect, glasses
 - (4) Purpose of licensing
 - (a) Identification of car and driver
 - (b) Reduction of car thefts
 - (c) Tax revenue
 - c. Federal
 - (1) Defense activities
 - (2) Bridges over navigable waters
 - (3) Transportation of passengers and property across state lines
3. Uniform Vehicle Code
 - a. Content
 - b. Adoption by states
 4. Rules of the road
 - a. State and local traffic regulations
 - (1) Signaling—hand, automatic, car position
 - (2) Passing
 - (3) Cross traffic
 - (4) Parking
 - (5) Speed regulations
 - (6) School bus
 - (7) Emergency vehicle
 - (8) Turning in and out of traffic
 - b. Regulatory traffic information
 - (1) Signs
 - (a) Round—caution, railroad
 - (b) Diamond—reduce speed, hill
 - (c) Octagonal—stop
 - (d) Rectangular—information
 - (e) Triangular—refer to:
Uniform sign
Signals manual
 - (2) Lights—red, green, amber, flashing red, flashing amber
 - (3) Road markings—double solid, solid and broken, broken merging lines, color (yellow), zebra markings (pedestrian)
3. Find out from someone who has purchased a car what must be done to meet the requirements of the law before the dealer actually transfers possession of the car. What papers must be prepared and signed, etc.?
 4. Make a survey at a local intersection to check use of:
 - a. Hand signaling
 - b. Mechanical signaling
 5. Prepare charts of reaction time.
 6. With the aid of the English department, dramatize the scene of an automobile crash to bring out what you should do when involved in a crash, whether you are to blame or not.
 7. With the aid of the English department, debate the subject: Uniform traffic laws conflict with the American policy of State's rights.
 8. Invite an enforcement officer to be the guest speaker at your school assembly or to lead discussion in the classroom.
 9. Illustrate the types of traffic control devices in use today. Photographs could be used.

BASIC REFERENCES

- Vehicle Code of Pennsylvania*, Department of Revenue, Bureau of Highways, Harrisburg, Pa.
Sportsmanlike Driving, 1955, American Automobile Association, Washington, D. C.
The Road to Better Driving, 1955, Cambridge Publishing Co., New York City.

SUGGESTED TEACHING AIDS

1. Mickey's Big Chance—15 min., AAA
2. Accident Behavior—20 min., Progressive Pictures, 631 Thornhill Dr., Oakland 11, Calif.
3. Your Permit to Drive—10 min., General Motors Corp., General Motors Bldg., Detroit 2, Michigan
4. Signs of Life—20 min., 35 mm. sound film, National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.

UNIT 4.—SOCIAL RESPONSIBILITIES IN DRIVING



If a community must enforce traffic regulations frequently, it means that its citizens need education in the value of voluntary observance and in the penalties of nonobservance. Anyone who claims the privilege of driving an automobile must also accept the responsibility it entails—the duty to safeguard the lives and property of his fellow citizens. Voluntary observation of traffic regulations, therefore, is the sign of a good driver and a good citizen.

Teacher Objectives

1. To develop in young people a sense of per-

sonal and social responsibility for the common welfare

2. To make students aware of social and economic aspects of the traffic control problem
3. To have students plan and participate in practical efforts that will lead to greater competence in the enforcement of existing regulations
4. To arouse an interest in improving traffic conditions by education
5. To acquaint students with the need for protection against personal liability through insurance

Essential Learnings

Suggested Activities

1. Improving desires for voluntary observance
 - a. Newspaper campaigns, editorials, pictures, cartoons
 - b. Radio and television programs, traffic club programs, interviews
 - c. Visual aids, posters, warning signs, films
 - d. Safety Sabbath programs
 - e. Polls of public opinion
2. Some problems of enforcement
 - a. "Fixing Mills"
 - b. Ticket "fixing"
3. Improvement of enforcement
 - a. Adequate personnel
 - b. Good officer-training program
 - c. Adequate, intelligent supervision
 - d. Proper equipment

1. Survey your school area for traffic hazards and make recommendations for the improvement of traffic safety.
2. Visit a traffic court in operation.
3. Bring in newspaper clippings that illustrate observance of laws and accident reduction.
4. List reasons why the practice of "ticket fixing" should be stamped out. Describe methods used to provide "fix-proof" tickets.
5. Have a police officer speak to the class or school, reporting his experiences regarding causes of accidents in the community.
6. Determine the enforcement index in your community. Is it adequate? Give evidence to support your contention.

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| <ul style="list-style-type: none">e. Court supportf. Public supportg. Adequate salaries, pensions, and insuranceh. Car inspections <ul style="list-style-type: none">4. Enforcement agencies<ul style="list-style-type: none">a. Policeb. Courtsc. Motor vehicle departments5. Penalties<ul style="list-style-type: none">a. Mandatory, 15-180 daysb. Point system6. Financial responsibility laws—effect on accident rates7. Legal<ul style="list-style-type: none">a. Criminal negligence casesb. Civil cases8. Accident responsibility—accident forms9. Insurance<ul style="list-style-type: none">a. Liability—driver and ownerb. Personal loss—fire, theft, collisionc. Damage costs awarded to others:<ul style="list-style-type: none">Property damage—liability insuranceBodily damage—liability insuranced. Assigned risk plan | <ul style="list-style-type: none">7. Secure statistics from local enforcement authorities which will illustrate the application of selective enforcement.8. Chart accidents in your locality, citing time of occurrence, type of accident, and location.9. Prepare a half-minute spot announcement about traffic law observance which could be used by a radio station.10. Include chemical test for intoxication. (Have student make or give a demonstration.) |
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SUGGESTED TEACHING AIDS:

1. *The Driver and the Law*—5-6 min., Association Films, 35 West 45th St., New York 19
2. *Let's Face it*—15 min., Cine-Tel Productions, 6327 Santa Monica Blvd., Los Angeles, Calif.
3. *Day in Court*—29 min., Modern Talking Pictures, Inc., 45 Rockefeller Plaza, New York 20

UNIT 5.—YOU AND YOUR CAR

Sufficient knowledge to operate a car mechanically is not enough. Before an operator starts the engine, he should have some knowledge of the various devices which will aid him in properly manipulating the machine and thus be its master. It is only by consulting the various gauges and devices and knowing the function of each that the driver can know whether his car is in proper operating condition to do its job efficiently.

Skillful driving also demands that the driver know the proper use of the instruments and controls found on the instrument panel of the car.

Teacher Objectives

To develop an understanding of the purposes and knowledge of the use of the gauges, safety aids, and starting and control devices in the driver's compartment of the car.



Essential Learnings

Suggested Activities

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|--|--|
| <ol style="list-style-type: none"> 1. Gauges <ol style="list-style-type: none"> a. Gasoline b. Water c. Oil pressure d. Ammeter e. Speedometer f. Odometer 2. Safety aids <ol style="list-style-type: none"> a. Light control switches b. Rearview mirror c. Windshield wiper d. Sun visor e. Windshield defrosters f. Heater g. Horn button h. Backing light i. Window ventilation j. Light dimmer k. Seat belts l. Turn signals m. Hand brake 3. Starting devices <ol style="list-style-type: none"> a. Standard transmission b. Automatic transmission <ol style="list-style-type: none"> (1) Ignition switch (2) Starter switch (3) Choke (4) Hand throttle 4. Control devices <ol style="list-style-type: none"> a. Steering wheel b. Clutch pedal c. Gear shift lever d. Accelerator e. Foot brake pedal f. Hand brake | <ol style="list-style-type: none"> 1. Tell briefly what the following indicate: <ol style="list-style-type: none"> a. Gasoline gauge b. Temperature gauge c. Oil pressure gauge d. Ammeter e. Speedometer f. Odometer 2. What part of the car keeps the battery charged? 3. Why is it important to keep up the water level in the battery? 4. Why does the oil gauge move when the car is being driven at higher speed? 5. List parts of car dependent on the battery for their proper functioning. 6. Explain how the choke is used and its effect on the carburetor. 7. Why can't we depend solely on the rearview mirror? 8. Draw a diagram of the instrument panel of a car showing gauges at normal. |
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SUGGESTED TEACHING AIDS:

Switches—Instruments and Controls, General Motors, General Motors Bldg., Detroit 2, Michigan

UNIT 6.—HOW YOUR AUTOMOBILE RUNS

Knowing what makes your car “tick” is important. The motorist who understands what makes his car run is able to make it run more efficiently in many driving situations.

The modern car is so well made that one does not have to be an expert mechanic to operate it efficiently. However, the driver who under-

stands his car will be a better driver because he knows the source of its power and how to control it.

Teacher Objectives

1. To explain each of the basic parts of the car
2. To explain what makes the car run

<i>Essential Learnings</i>	<i>Suggested Activities</i>
<ol style="list-style-type: none">1. Body and its attachments2. Chassis or skeleton<ol style="list-style-type: none">a. Frameb. Springs and shock absorbersc. Wheelsd. Brakese. Steering3. The power train<ol style="list-style-type: none">a. Clutch—standard; automaticb. Transmissionc. Universal and slip jointsd. Propeller shafte. Differentialf. Rear axle4. The engine<ol style="list-style-type: none">a. Preparing fuel to burnb. Providing place for burning fuelc. Igniting the fueld. Harnessing the power—the four-cycle engine<ol style="list-style-type: none">(1) The pistons(2) The flywheel(3) Intake stroke—valves(4) Compression stroke(5) Power stroke(6) Exhaust stroke(7) Regulating the speed(8) Timinge. Cooling systems<ol style="list-style-type: none">(1) Oil(2) Water(3) Airf. Lubricating the engineg. Starting the engineh. Transferring power<ol style="list-style-type: none">(1) Clutch(2) Transmission gears(3) Universal joints(4) Differential gears(5) Rear axle(6) Brakes(7) Steering—standard; power	<ol style="list-style-type: none">1. Visit a garage or the auto shop in your school and examine various parts of the car.2. Show how pistons, connecting rod, and crankshaft operate in much the same manner as do the legs in pedaling a bicycle.3. Using two pie tins, show how the clutch is engaged and disengaged.4. Point out the four basic parts of a car and explain how each functions.5. Show what effect “riding the clutch” will have on that part of the mechanism.6. Show what effect “racing a motor” has on a motor.7. Show what would happen if you attempted to shift gears without depressing the clutch.8. Explain why it is unwise to hold a car with the clutch when stopped on a hill.

UNIT 7.—GETTING YOUR MONEY'S WORTH FROM YOUR CAR

Proper maintenance of your automobile is sound economy. You do not need to be a mechanic to take good care of your car. Regular checking and proper care of its various parts will not only save you money, but may also save your life.

Teacher Objectives

1. To show the young driver what the car needs to insure economical performance
2. To explain what each basic element of the car requires to guarantee safe performance

Essential Learnings

Suggested Activities

A. Lubrication Essential for Protection of Every Moving Part of the Car

1. Kinds of lubricants
 - a. Oil
 - b. Grease
 - c. Graphite
2. Keeping motor oil free from dirt, dust, water, and sludge
3. Changing oil (every month or every 2000 to 3000 miles)
4. Changing oil filter
5. Chassis lubrication (every month or every 1000 miles)
6. Transmission (check each month; change fluid once a year)
7. Front-wheel bearings (check every 15,000 to 20,000 miles)
8. Selection of proper lubricant for proper part

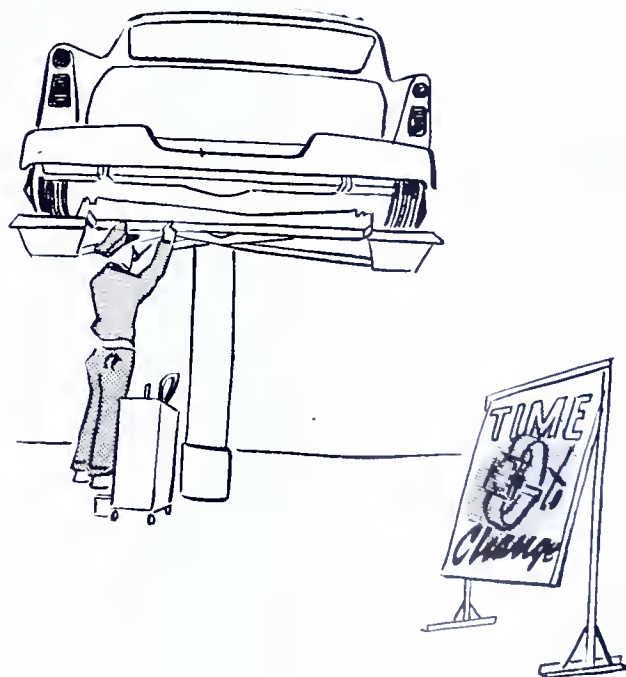
B. Inspection, Adjustment, and Repair

Need for specialist to check:

1. Cooling system
 - a. Check water level each time gasoline is purchased
 - b. Check kinds of antifreeze before using
2. Battery
 - a. Check each time chassis is lubricated
 - b. Use distilled water
3. The ignition system
 - a. Distributor points (check twice a year)
 - b. Spark plugs (check every 8,000 miles)
 - c. Connections and wires (check once each year)
4. Exhaust leaks (check immediately)
 - a. Carbon monoxide—a killer
 - b. Noisy exhaust or muffler—a warning
 - c. Law on mufflers
5. Clutch adjustment—check clutch pedal for “play”
6. Transmission and differential
 - a. Warning signs—“growl” or “hum”
 - b. Consult mechanic
7. Universal joint—warning signal, a metallic clash when gas pressure is released
8. Rear axle—warning signals, a wobbly rear wheel; a “growl” or “hum”

Discussing such problems as:

1. Why it is necessary to keep the oil in the car at the proper level
2. Why periodic checks of all motor vehicles should be made
3. Why different lubricants are best for different parts of the car
4. How often the following should be checked: oil, battery, and tires
5. Why it is important to have the front wheels checked and how often this should be done
6. Why it is important not to have too much play in the steering wheel, the clutch pedal, and the brakes
7. Two kinds of insurance for motorists and an explanation of each
8. The importance of “winterizing” your car in climates where winters are severe
9. What one should look for in buying a used car



9. Springs and shock absorbers—warning signal, little resiliency
 10. Steering system—lag in steering due to: worn tie rods, worn steering column
 11. Brakes—take off the wheels and check brakes (twice a year)
 12. Tires (rotate tires)
 - a. Check for proper air pressure
 - b. Check for uneven wear
 13. Lighting system—proper adjustment (periodic check)
 14. Entire car (check twice a year)
- C. Important Economies
1. Moderate speed in driving essential to economy
 - a. Costs increase with fast driving
 - b. Costs increase with rapid starts and stops
 - c. Costs increase when racing the engine
 2. Insurance against unforeseen losses
 - a. Comprehensive coverage
 - b. Collision insurance
 3. Purchase of an automobile
 - a. New—advantages
 - b. Used—advantages
 4. Protection against personal liability
 - a. Driving efficiently
 - b. Locking the car
 - c. Refraining from lending the car to others
 - d. Refraining from transporting hitchhikers
 5. Use of road maps when planning trips
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UNIT 8.—YOU, THE DRIVER

The automobile is man's most popular power machine. When children reach driving age, they tend to mimic the actions of their elders in using present-day high-powered vehicles. The service and satisfaction derived from these vehicles are in proportion to how safely they are used.

Facts and figures in reference to motor transportation show how important it is that you, the driver, take your responsibilities seriously. Over 55 million vehicles are registered in the U.S.; over 70 million people are licensed automobile operators; nearly $\frac{2}{3}$ of all families in the United States own one or more cars; nearly half of all employed persons use a passenger car in connection with earning a living; and approximately five million new registrations are issued each year.

Facts and figures, such as the ones above,

may accomplish what those interested in highway safety are constantly trying to accomplish. They impress the driver of a motor vehicle with the fact that he, too, is a statistic in these figures, and as such, he should always remain on the right side of the ledger.

Teacher Objectives

1. To teach the responsibilities that must be accepted when one becomes the driver of a motor vehicle
2. To develop in the student a cooperative and responsible behavior regarding traffic laws, signs, and signal and control devices
3. To teach the mental and physical qualifications and emotional control necessary to becoming a safe user of our streets and highways
4. To develop in the student a realization that attitudes, habits, and emotional reactions affect driving efficiency

Essential Learnings

Suggested Activities

A. The driver's age

1. Minimum age by law
2. Maximum age, if any
3. Mental attitude in reference to age
4. Age grouping based on:
 - Trained and nontrained
 - Accidents and arrests
 - Physical-mental abilities
 - Driving abilities

B. The driver's mental abilities

1. Educational standing in school
2. Social standing
 - a. Home
 - b. School
 - c. Extracurricular activities
 - d. Community activities
3. Early school dropouts—their driving instruction
4. Retarded students (in special education)
 - a. Definite need for instruction
 - b. Type of instruction

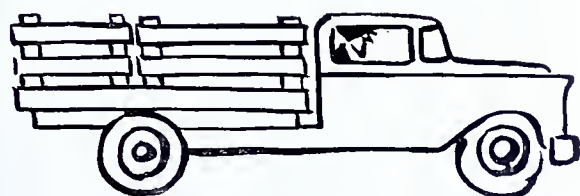
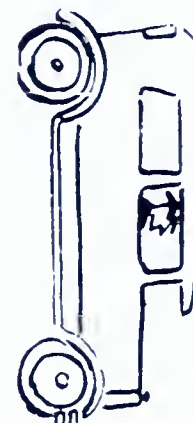
1. Use psychophysical-testing material, such as:

- a. Visual acuity
- b. Depth perception
- c. Field of vision
- d. Glare recovery
- e. Reaction time
- f. Color blindness

2. Visit a traffic court. Observe the types of individuals arraigned before the court, the violations of which they are guilty, and the presiding officer's attitude toward these offenders.

3. Demonstrate the modern technique for the legal determination of intoxication.

1. Discuss Pennsylvania's policy with regard to refusing to grant drivers' licenses.
5. Outline the changes made through education in undesirable attitudes of drivers.



C. The driver's physical abilities

1. Disabilities
 - a. Correctable
 - b. Compensable
2. Vision
 - a. Visual acuity
 - (1) Legal correction
 - (2) Eye-testing charts
 - (3) Perception
 - b. Field of vision
 - (1) Tunnel-barrel vision
 - (2) Maximum and minimum degrees of compensation
 - c. Depth perception
 - (1) Rod test
 - (2) Outdoor test (with car)
 - (3) Noncorrectable
 - (4) Compensation
 - d. Night vision
 - (1) Glare recovery
 - (2) Vitamin A-C
 - (3) Dark glasses
 - (4) Night blindness (photophobia)
 - e. Color blindness
 - (1) Noncorrectable
 - (2) Compensations
 - (a) Slower driving
 - (b) Learning standard shapes of signs and signals
 - (c) Observing other drivers
3. Hearing—compensation through:
 - a. Use of hearing aid
 - b. Slower driving
 - c. Observing surrounding traffic
4. Chronic illness
 - a. Need for correction or permanent restriction
 - b. Legal-social responsibility
 - c. Dangers in excessive use of such medicines as sedatives, barbiturates, or other tranquilizing drugs
5. Driver's reactions affected by:
 - a. Age
 - b. Current mental-physical condition
 - c. Training to react correctly

D. Driver's mental alertness affected by:

1. Emotions, such as anger, fear, love, etc.
2. Use of alcohol
 - a. Student drinking
 - b. Adult drinking
 - c. Legally approved tests for intoxication
3. Disregard for body limitations
 - a. Fatigue
 - b. Illness
 - (1) Temporary
 - (2) Affliction of known permanency

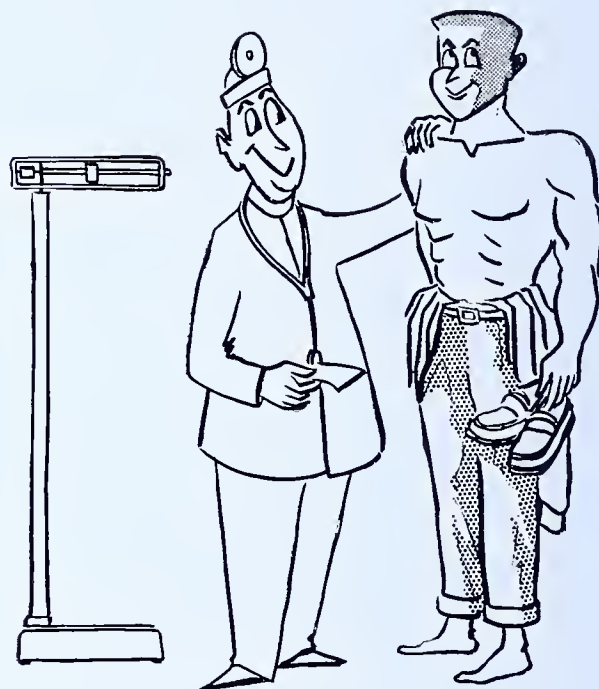
E. Driver's social responsibilities

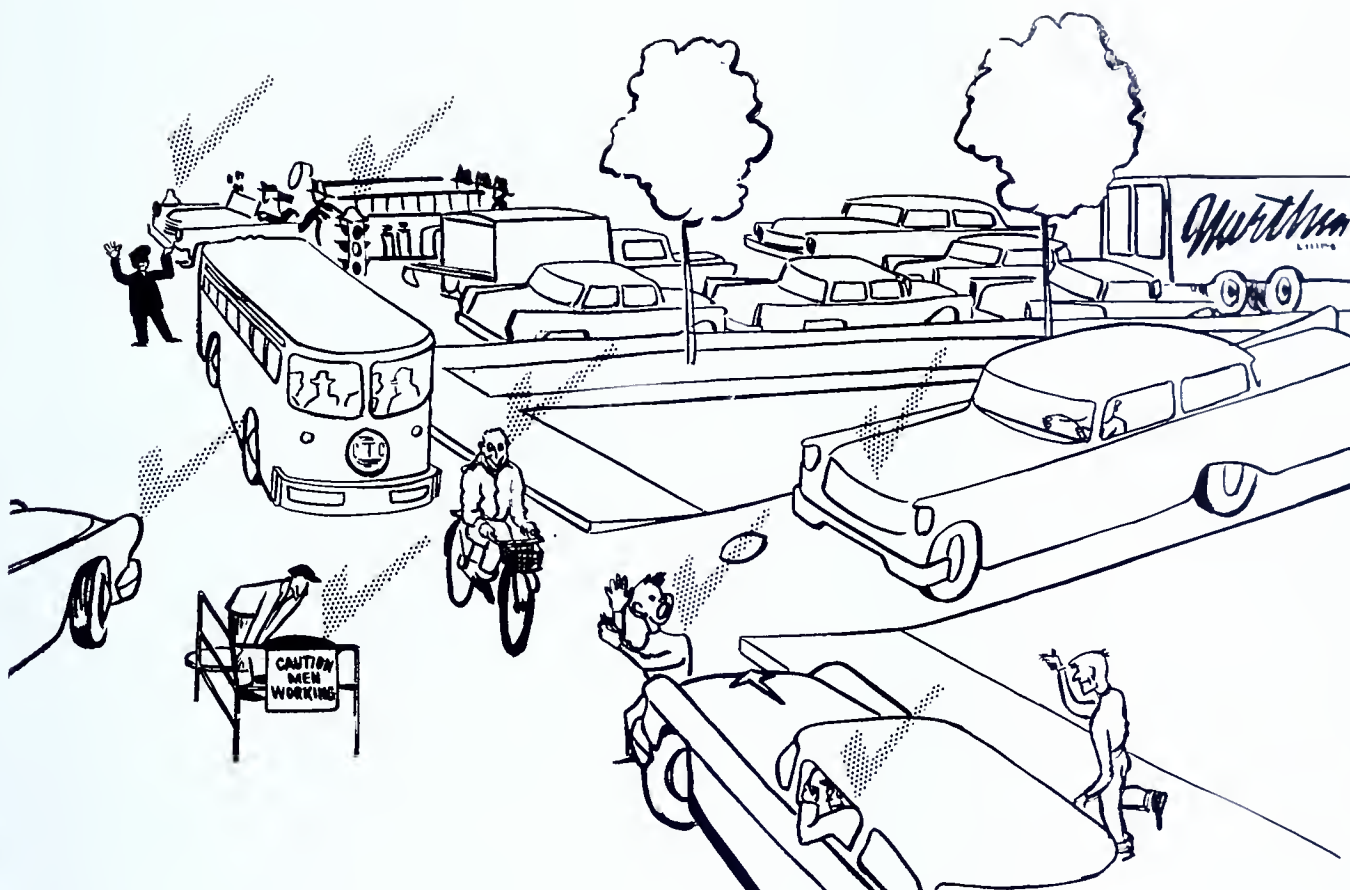
1. Interaction of social, physical, mental, and emotional qualities
2. Responsibilities to the family, the community, and to other users of the highway

F. The driver's future

1. Rapid increase in the number of users of highways
2. More emphasis on speed—on horsepower
3. New age of speed on land, water, and in the air
4. Motor vehicle control at local, state, and national levels
5. Crowded communities and highways

6. Prepare a list of the mental and emotional qualities needed by a star athlete. Which of these qualities apply to a topnotch driver?
7. Discuss the biological reactions caused by emotional stimuli.
8. Attend the court trial of a highway accident case.





UNIT 9.—COMMON EMERGENCIES

Good drivers, drivers who obey all the traffic rules and never take unnecessary chances, are often killed on our streets and highways. Fatal accidents occur because of accident-causing factors that even our best drivers can not control. One of these factors is the "other driver." We share the roads with all kinds of people and all kinds of drivers—good, poor, irresponsible, and new drivers.

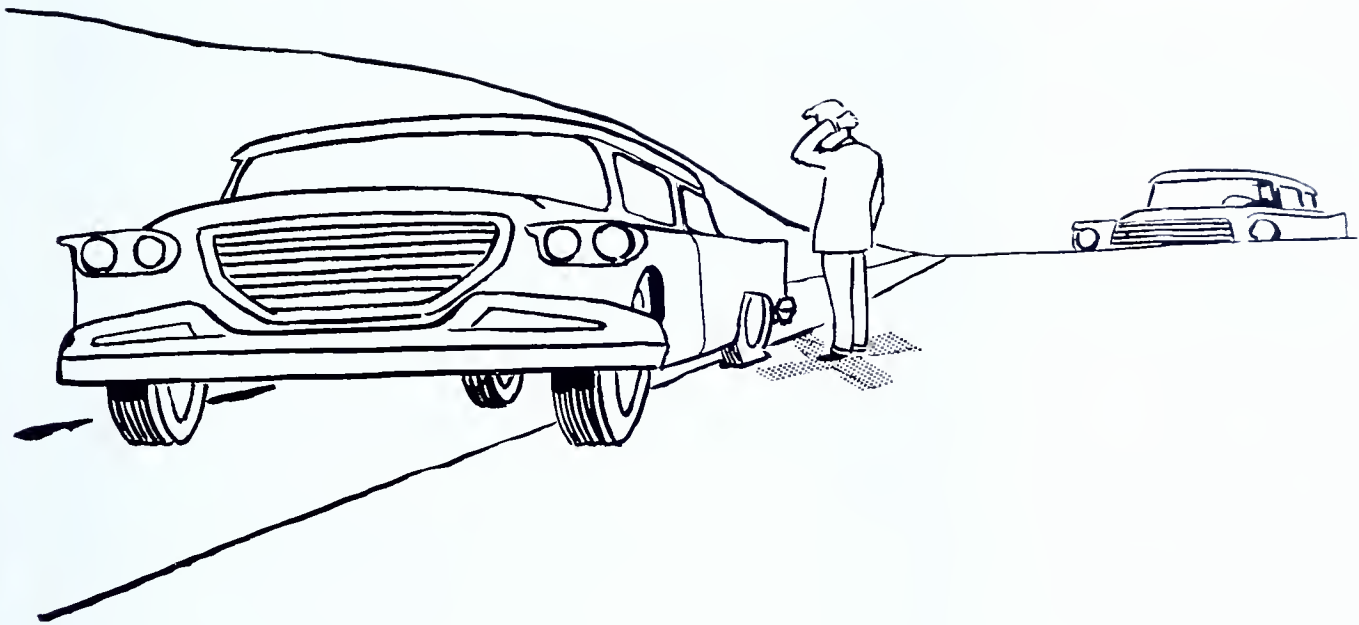
Other factors which present common emergencies are: cars that get out of hand even when driven by our best drivers; and roads that are in poor condition, are not well marked, or have not been modernized.

Many times, only alertness to conditions and experience in the quick solution of sudden emergencies may prevent a serious accident.

Teacher Objectives

1. To prepare the youthful driver to meet the everyday emergencies of modern traffic conditions
2. To stress the absolute necessity of adopting an "on guard" attitude at all times while operating a motor vehicle
3. To teach the young driver how to solve situations classed as common emergencies which may arise while operating a motor vehicle

<i>Situation</i>	<i>Solution</i>
1. Frozen door lock	1. To overcome the emergency of a lock frozen by sleet or cold, heat the key by using matches or cigarette lighter; then place in lock.
2. Wet spark plugs— After a heavy rain or snow storm, moisture often gathers around the spark plugs causing a short circuit and preventing the car from starting	2. DO NOT GRIND AWAY AT THE STARTER. Lift hood and wipe each spark plug dry. First, turn off ignition to prevent electric shock.
3. Basic first aid— Early arrival at the scene of an accident involving personal injury	3. Stop visible bleeding. Treat for shock. Warn approaching traffic.
4. Car stuck in mud, snow, or sand	4. Use cinders or burlap bag carried in trunk for such emergency; or find planks, limbs of bushes or stones which will supply traction for the spinning wheel and get the car in motion. Do not "gun" the motor but ease the clutch to give the wheel traction. Sometimes deflating the tires, especially in sand, will give more traction and get the car out of difficulty. In traveling muddy or snow-covered roads, use chains as a precautionary measure. The mud and snow tires now available will assist in reducing skidding by increasing traction.
5. Skidding— Speed always increases the possibilities of skidding	5. To avoid skidding, reduce speed when road is icy, wet, or slippery. When the driver skids, he should turn the wheels in the direction of the skid; apply slight gas pressure; avoid braking. After regaining control, return to right of road.
6. Wet brakes	6. Feed gas gently with right foot and supply gentle pressure on brake pedal with left foot until brakes dry.
7. Stuck gear shift lever	7. If gear lever will not move, turn off ignition. Set parking brake. Lift hood, adjust gear selector arm, and shift arm. Press in the clutch pedal completely. Move the gear lever to low gear to see if situation is corrected.
8. Child darts into street— You are driving at permissible speed on a city street when suddenly a child dashes into the street from behind a parked car. Traffic fills the lane in opposite direction.	8. Apply brakes. Hold wheel straight. Stop car.
9. Cyclist turns suddenly in roadway— You are driving on a city street behind a bicyclist. Suddenly the cyclist swerves directly in front of your car. There is no oncoming traffic.	9. Apply brakes hard. Sound horn and turn steering wheel sharply to left. Stop car.
10. Icy roads— You are driving in a sleet storm on an icy street when suddenly the light changes at an intersection.	10. Drive to meet the conditions of the road. Apply brakes gently with pumping action to avoid skid. If skid occurs, turn wheel in direction of skid.
11. Right turn from left lane— You are driving in right-hand lane when car in left lane makes right turn without signalling.	11. Apply brakes. Hold wheel straight. Stop car.
12. Double clutching— It may become necessary to use a double-clutching procedure to shift from a higher to a lower gear when going up and down hills.	12. Press clutch pedal in. Lift toe from accelerator. Move gear lever to neutral. Let the clutch pedal out. Press the clutch pedal in. Press on the accelerator increasing the engine speed to match the car speed. Move gear lever to desired position. Let clutch pedal come to the place where it takes hold—hesitate—let it come out under control.



<i>Situation</i>	<i>Solution</i>
13. Brake failure— You are going down a steep grade. You step on the brake pedal and the brakes do not respond.	13. Pump the brake pedal up and down quickly. Pull on the emergency brake. If you can, shift into low gear. Move to right side of road to avoid traffic.
14. Blinded by oncoming headlights— You are driving at right of road; a car comes up from a dip in the road with its bright lights glaring in your eyes. You flip your lights on and off; the other driver does not dim his lights.	14. Do not look at the oncoming lights. Dim yours. Fix your eyes on the right edge of the road. Release pressure on gas and slow down. Pull to right to give other car room.
15. Tire blowout— You are traveling at legal speed on highway when left front tire blows out.	15. Grip wheel tightly. Do not step on brake. Keep wheels straight. Keep foot on gas, but ease up on the pressure. After slowing down to safe speed, apply brakes lightly. Get car well off the road to change tire.
16. Going off the road— You are traveling at legal rate of speed when your wheels run off the pavement onto a low shoulder.	16. Ease up on the gas. Get firm grip on steering wheel. Straddle edge of road. Apply brakes gently with pumping action. When you have slowed down, bring car back on road. Be careful not to turn wheels too sharply.

UNIT 10.—FUNDAMENTALS OF AUTOMOTIVE CONSUMER EDUCATION

Consumer education is essential due to high-power advertising and high-pressure salesmanship in order that the individual may differentiate between “dress-up” and true value in selecting a car which fits into the family budget. Consumer education also helps him grasp the fundamentals of preventive and corrective maintenance and helps him to appreciate the “engi-

neering for safety” involved in automobile construction.

Teacher Objectives

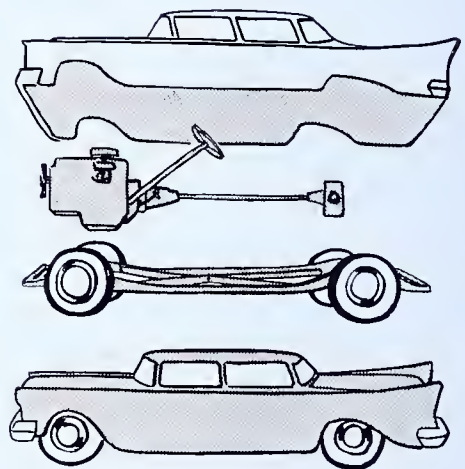
1. To stress the safety factors involved in the purchase, maintenance, and operation of motor vehicles from the consumer's standpoint
2. To acquaint students with the factors to be considered in the purchase of new and used motor vehicles and accessories



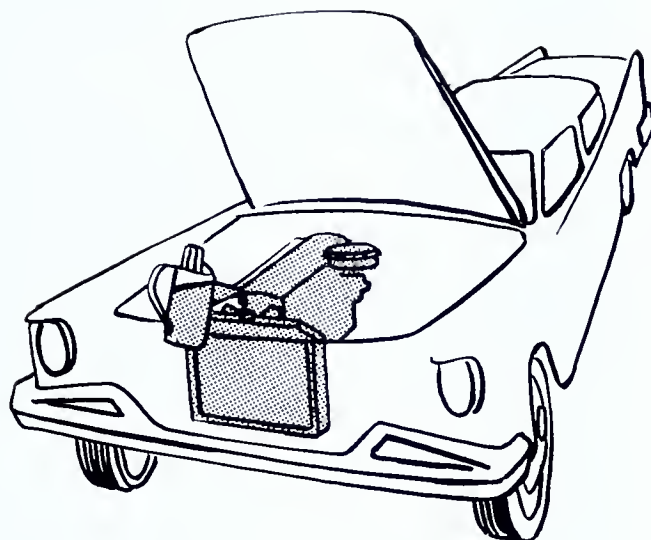
Essential Learnings

Suggested Activities

1. Considerations in the selection and purchase of a new car
 - a. Weight, power, and design for purpose(s) desired
 - b. Safety features: brakes, steering, vision, structural strength, center of gravity, position of pedals, hand brake, horn, ash tray, safety belts, doors, etc.
 - c. Design for comfort and convenience
 - d. Resale value of the car
 - e. Availability of service
 - f. Plan of financing including hidden charges
 - g. Operating and repair estimates
 - h. Cost in relation to ability to pay
 - i. Car performance on road test
2. Considerations in the selection and purchase of a used car
 - a. Buy from a reliable dealer
 - b. Beware of the "rush" sale
 - c. Ascertain true condition with the aid of a good mechanic
 - d. Check: car history; driving operation; leaks; chassis, tires, body and finish; State inspection date; radiator; and collision damages
 - e. Check safety devices and accessories: lights, turn signals, horn, windshield wiper, sun visors, ventilators, foot and parking brakes, heater, defroster, radio, etc.
 - f. Consider purchase price and economy of operation.
3. Economical operation of the car
 - a. Drive at reasonable speeds
 - b. Keep correct tire pressure; never drive on a flat tire
 - c. Inspect tires weekly
 - d. Avoid striking holes and sharp objects
 - e. Start, drive, and stop smoothly
 - f. Keep brakes adjusted
 - g. Rotate tires at regular intervals
 - h. Check wheel alignment
 - i. Avoid overloading the car
 - j. Keep oil and grease off tires
 - k. Avoid "racing" the engine
 - l. Have engine "tuned up"
 - m. Have car serviced regularly
 - n. Protect the car: cleansing, garaging, preventive maintenance



1. List the safety features you should look for when buying a car.
2. Collect and compare automobile manuals intended for the consumer.
3. Make a survey of new car dealers in your community and secure a sampling of consumer literature available from these sources.
4. Dramatize the selection and purchase of a new or used automobile.
5. Interview a dozen or more consumers to learn what factors determined their choice of an automobile.
6. Write a movie scenario or radio script on the need for automobile consumer education.
7. Make a list of practical ways of preserving the value of your investment in a car.
8. Research: Some drivers do not believe it necessary to change engine oil as frequently as the lubrication chart recommends, provided their cars have oil filters. Check carefully on this matter and discuss your conclusions with your group.



Essential Learnings

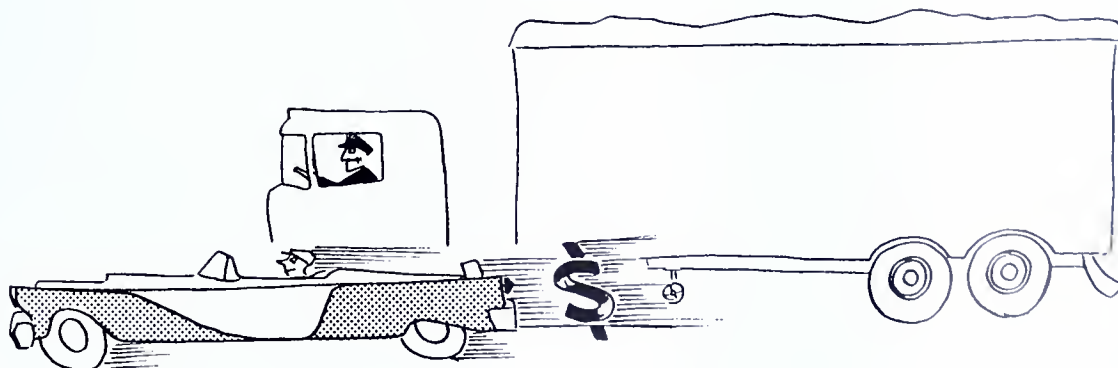
Suggested Activities

4. Selection and purchase of gasoline, oil, lubricants, anti-freeze, service and repairs
 - a. Quality and octane ratings
 - b. Cash, credit, and time payments
 - c. Incentives for buying—premiums, trading stamps, etc.
5. Tools and equipment for owner maintenance
 - a. Emergency needs (fire extinguisher, first-aid kit)
 - b. Standard equipment
6. Reading of road maps and planning trips
 - a. Services of automobile clubs, service stations, chambers of commerce, etc.
 - b. Importance of adequate advance thinking and planning
7. Consideration of part car plays in family life
 - a. Will it be used for errands, work, school, summer vacations, other leisure-time activities
 - b. Is yours a two-car family
 - c. Does the car cause family disputes
9. Explain what is meant by keeping a vehicle "tuned up." Illustrate how long-run economy can be realized by good maintenance procedures.
10. View and discuss appropriate films available for driver education purposes.
11. Check with better business bureau, chamber of commerce, or similar organizations in your community regarding information pertinent to the purchase of used cars.

BASIC REFERENCES:

- Automotive Antifreezes.* Government Printing Office, Washington, D. C.
- Better Buymanship.* Bulletins on Automobile Tires and on Gasoline and Oil, Household Finance Corporation, 919 North Michigan Ave., Chicago, Ill.
- Cummings, W. J. K. *How to Be an Expert.* Philadelphia Cummings Enterprises, 1948.
- Williams, Frank, *How to Cut Your Driving Costs.* Harian Publications, Greenlawn, L. I., New York, 1953.
- Williams, Frank. *How to Get Your Money's Worth in a Car Deal.* Harian Publications, Greenlawn, L. I., New York, 1953.

TEACHING AIDS: Consult magazine articles under *Safety* and *Consumer* in the Reader's Guide to Periodical Literature.



UNIT 11.—YOU SHARE THE ROAD

A. PEDESTRIAN SAFETY

The pedestrian is of primary consideration in urban street traffic. He uses the busy intersections during the hours when vehicular and pedestrian traffic is at its peak. He has a great part to play in the orderliness and efficiency of all traffic movement. Almost everyone is a pedestrian. Even the driver of a vehicle becomes a pedestrian when he parks his car. Therefore, the teaching of pedestrian safety is the most important phase of any safety education program.

Safety education must begin when the child is very young. National statistics¹ reveal that the average number of children of the preschool age killed by motor vehicles annually are: Under 1 year—308; 1-2 years—430; 2-3 years—448; 3-4 years—587; 4-5 years—378. It is during childhood, when parents have the total responsibility for the child's safety, that they have the opportunity to demonstrate by personal example those safety procedures, habits, and attitudes that will protect him in his school years. The parent thus becomes the child's first teacher.

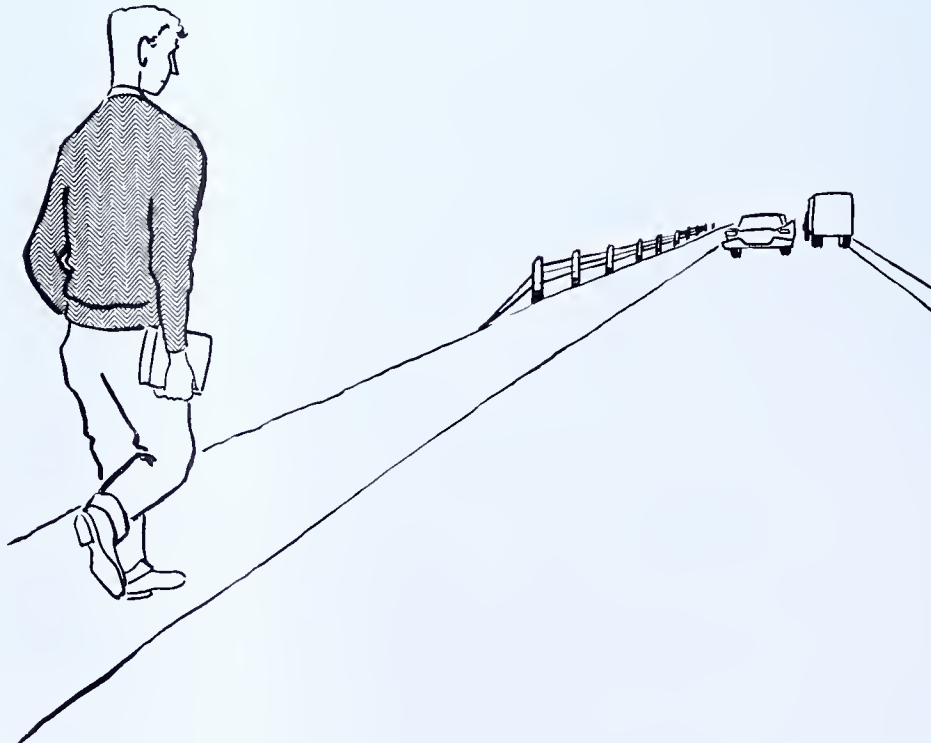
Teaching of safety education in the schools has produced remarkable results in the decline of the traffic death rate of school children. The

death rate for children from age 5-14 declined more than 28 per cent between 1922 and 1947. This was during a time when traffic death rates for adults practically doubled. It illustrates the fact that education and appreciation of the skills, habits, and attitudes learned in the classroom will reduce the accident rate of the pedestrian.

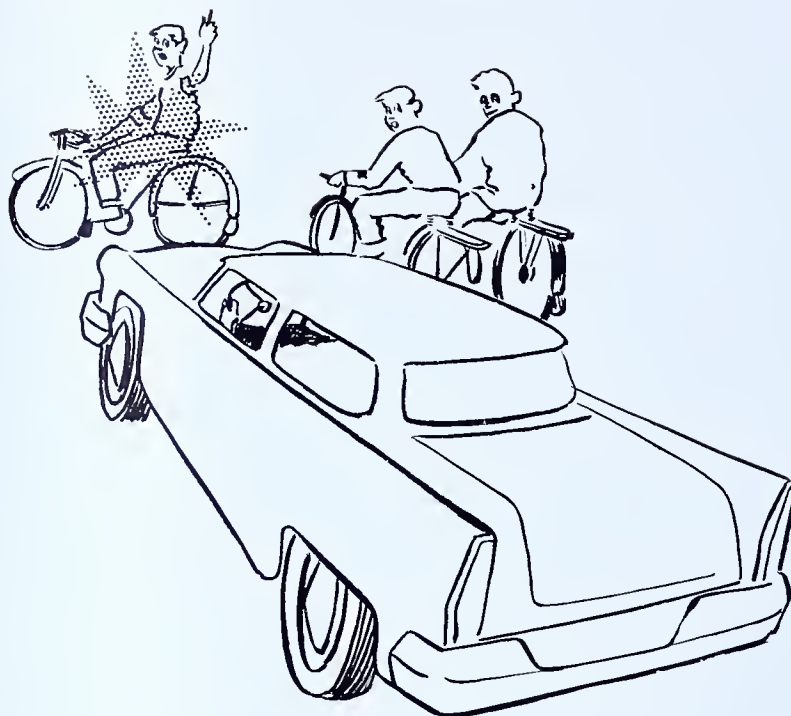
Teacher Objectives

1. To establish a background as to how and when safe habits, skills, and attitudes are grasped
2. To learn who is responsible for teaching early skills, habits, and attitudes
3. To analyze the serious trend of pedestrian traffic fatalities
 - a. Preschool children, b. School children, c. Adults
4. To determine location and cause of most pedestrian accidents
5. To aid students to determine what traffic hazards are dangerous to pedestrians at night
6. To aid students as pedestrians to develop correct skills, habits, attitudes, and knowledge conducive to safe living in daytime traffic

¹ *Your Child's Safety*. Public Affairs Pamphlet, No. 225, 225 E. 38th Street, N. Y.



1. Facing the statistical facts
 - a. Pedestrian accidents among:
 - (1) Preschool children
 - (2) School-age children
 - (3) Adults
 - b. City accidents and rural accidents compared
 - (1) Pedestrian behavior in urban areas
 - (2) Pedestrian behavior in rural areas
 - c. Pedestrian attitudes—old and new
 - d. Understanding the pedestrian
 - (1) Handicapped persons, such as the deaf, blind, crippled, etc.
 - (2) Uninformed persons, such as those ignorant of traffic rules, in a hurry, afraid and confused
 - (3) Careless persons, such as the absent-minded, those with poor judgment, and those who engage in horseplay
 - (4) Persons with poor attitudes, such as the stubborn, defiant, selfish, intoxicated
 - (5) Accidents caused by persons with open umbrellas, packages, perambulators
 2. Qualities applicable to elderly people
 3. Qualities applicable to children
 4. Protective devices for pedestrians
 - a. Traffic lights—pedestrian-controlled lights
 - b. Traffic lanes
 - c. Police
 - d. Traffic tunnels, etc.
 - e. Sidewalks
 - f. Safety islands
 5. Other protection for pedestrians
 - a. Pedestrian education programs
 - b. Protection on highways at night
 - c. Problem of the nondriving pedestrian
 - d. Play areas for youngsters
 - (1) Playgrounds
 - (2) Closed streets
 - e. Protection to and from school
 - (1) School patrol
 - (2) Crossing guards
 - (3) Sidewalks
 - (4) Green pennant campaigns
 - (5) Skates, sleds, and wagons left at home
 - (6) Use of safest route to and from school
 - f. Pedestrian precautions on highway
 - (1) Walk single file on highway
 - (2) Face traffic
 - (3) Wear white at night
 - (4) Walk off roadway
 - (5) Do not hitch hike
 - (6) Leave highway when two cars are passing
1. Study the seriousness of the preschool pedestrian problem.
 2. Compare the safety record of the school-age group with adults and with preschool age.
 3. Discuss when and where most pedestrian accidents occur.
 4. Learn what precautions should be taken by a person waiting for bus or streetcar.
 5. Find out why persons between ages 15-21 have lowest accident rate.
 6. Discuss liability of property owners for safety of pedestrians.
 - a. Who has right of way?
 - b. When?
 7. Discuss what a good pedestrian program in a community should include.
 8. Discuss some of the means by which schools protect the school-age pedestrian.
 9. Discuss why a good accident-reporting system is necessary in the community and in the school.
 10. Explain the drivers' responsibilities for pedestrians' safety.
 11. Name several agencies interested in community safety.
 12. Discuss some of the methods which schools use to teach safety. Tell how school safety committees or councils can help the safety program in your school.
 13. Explain why aged people are apt to be injured on streets and highways.
 14. Discuss the merits of pedestrian ordinances.
-



B. BICYCLE SAFETY

Today the bicycle is used more than ever before. Of the approximately 18 million bicycle riders in the United States, about 90 per cent are children. It is estimated that there will be 25 million riders by 1960.

Because of the many school children using bicycles, bicycle safety presents a safety problem in many communities and schools need to solve this problem. Collisions between bicycles and motor vehicles accounted for 450 deaths and 23,000 injuries in the United States during 1953. In Pennsylvania, 12 children between the ages of 5 and 11 were killed while riding bicycles and 693 were injured.¹

A bicycle is considered a vehicle when on the highway or street and the rider must observe all the traffic laws. Children who learn the funda-

mentals of safety while riding a bicycle on the highway are preparing for the day when they will observe similar safety precautions as drivers of motor vehicles.

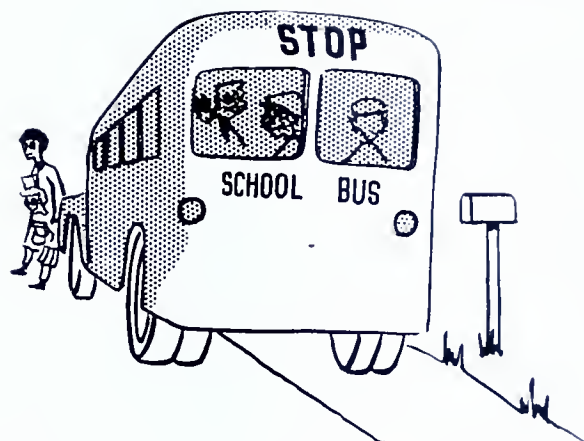
Teacher Objectives

1. To establish the place of the bicycle in the safe driving program
2. To develop the skills necessary to ride safely on our streets and highways
3. To teach the bicyclist his responsibility to other users of the streets and highways including the observance of traffic signals and obedience to traffic laws
4. To aid the student to appreciate that good bicycling requires the formation of good safety habits
5. To develop good citizenship through safety practices

¹ *Accident Facts*. 1953, National Safety Council, Washington, D. C.

<i>Essential Learnings</i>	<i>Suggested Activities</i>
<ol style="list-style-type: none"> 1. Early history of the bicycle 2. Statistics of bicycle fatalities and injuries <ol style="list-style-type: none"> a. National, b. State, c. Local 3. The need for bicycle safety education <ol style="list-style-type: none"> a. The right of the bicyclist to the highway b. The responsibility of the bicyclist 4. The parents' part in the bicycle safety program <ol style="list-style-type: none"> a. Selecting a bike b. Teaching the youngster to ride c. Care of the bicycle 	<ol style="list-style-type: none"> 1. Discuss the advisability of establishing a school court to try the violators of your bicycle code. 2. Discuss the establishing of a bicycle club with the proper goals and regulations. 3. Establish a bicycle skill course for checking each rider's skill in handling his or her bicycle. 4. Invite a reliable dealer to bring a bicycle to the classroom and demonstrate how to adjust the seat and handle bars properly and how to keep the bicycle in proper running condition.

- d. Cooperation of parents with school and local police officials
- e. Selection of safe places to ride
5. The accident problem and its relationship to bicycle safety
6. Use of the bicycle
7. Care and maintenance of the bicycle
8. Development of skills in bicycle riding
9. Attitude of cyclist toward traffic regulations
10. School activities promoting bike education
11. Rider should become a pedestrian at crowded intersections
12. Responsibilities of municipal authorities licensing bicycles



C. BUS TRANSPORTATION¹

Safe and efficient bus transportation has facilitated the consolidation of schools and expanded educational opportunities for school children. Where modern schools and better education could not be brought to the pupil, the pupil has been taken to the school.

Although bus transportation has brought many pupils to better schools, it has also subjected them to the hazards of highways and traffic. Therefore, educators and all persons connected with the important task of transportation are responsible for providing the best safety services possible.

¹ For additional information see Bulletin 396, *Handbook for the School Bus Driver*, Department of Public Instruction, Harrisburg.

Although the number of accident injuries and fatalities occurring on school buses is low compared with those of other carriers, it is important to keep in mind constantly certain practices which have made pupil transportation economical, efficient, and safe.

Teacher Objectives

1. To recognize and conscientiously accept the responsibilities involved in conducting the school bus program
2. To acquire an understanding of the many problems involved in the increased use of the school bus for pupil transportation

Suggested Learnings

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Essential equipment standards 2. Preventive maintenance and inspection 3. Establishment of transportation areas 4. Establishment of satisfactory routes 5. Establishing stops 6. Avoidance of high speed thoroughfare 7. Driver selection and education (<i>Safety in Pupil Transportation</i>, 1955, Report of the Eno Foundation)
The school bus driver | <ol style="list-style-type: none"> 8. Care of pupils through: education; bus patrols for loading, unloading and seating of pupils 9. Sanitation of school buses 10. Management and administration of pupil transportation 11. Other users of the highway <ol style="list-style-type: none"> a. Motor bikes b. Motor scooters c. Motorcycles d. Horse-drawn vehicles e. Tractors and farm machinery, e. g., harvesters, reapers, binders, etc. f. Military and civil defense traffic |
|--|--|

UNIT 12.—USE OF THE AUTOMOBILE IN CIVIL DEFENSE AND DISASTER

Tests, under actual atomic explosion in Nevada, proved that modern cars, especially those with turret-top (hard top) construction, give a degree of protection against blast, heat, and radiation.

Your car can help shelter you if, before an attack, you follow these simple rules:

1. Roll down the windows to equalize pressure and prevent glass breakage.
2. Crouch or lie down below the level of the windows.
3. After attack, raise windows to keep out as much dust (fallout) as possible.

Shelter in an unexpected blast is a bonus you get from your car. What is more important, the car provides a small movable house for your use in an emergency. You can get away in it. If necessary, you can live, eat, and sleep in it.

Your car can be your information center. Under the *Conelrad* system of emergency radio broadcasting, your car radio will be your source of official information. Your *Conelrad* stations will be found at 640 and 1240 on your radio dial.

Your car can help you move away from danger. Many civil defense actions, especially pre-attack evacuation, depend on your ability to move away from a probable area of danger or attack. Properly used, your car can move you and your family to a haven of safety.

To be prepared for an emergency evacuation, follow these precautions:

1. Keep your car in best possible mechanical condition

2. Keep your gas tank at least one-half full at all times
3. Be sure your battery is always in tip-top condition
4. Have latest maps of your city and surrounding areas in the car
5. Make certain your tires are sound and a spare is always carried
6. Carry a first-aid kit and blanket in your car

In an emergency you may not be able to buy food for several days. It is recommended that each home have a seven-day supply on hand. Keep these rations in a carton ready to put into the trunk of your car along with water containers, clothing, and other items you will need if forced to stay in the open for a few days.

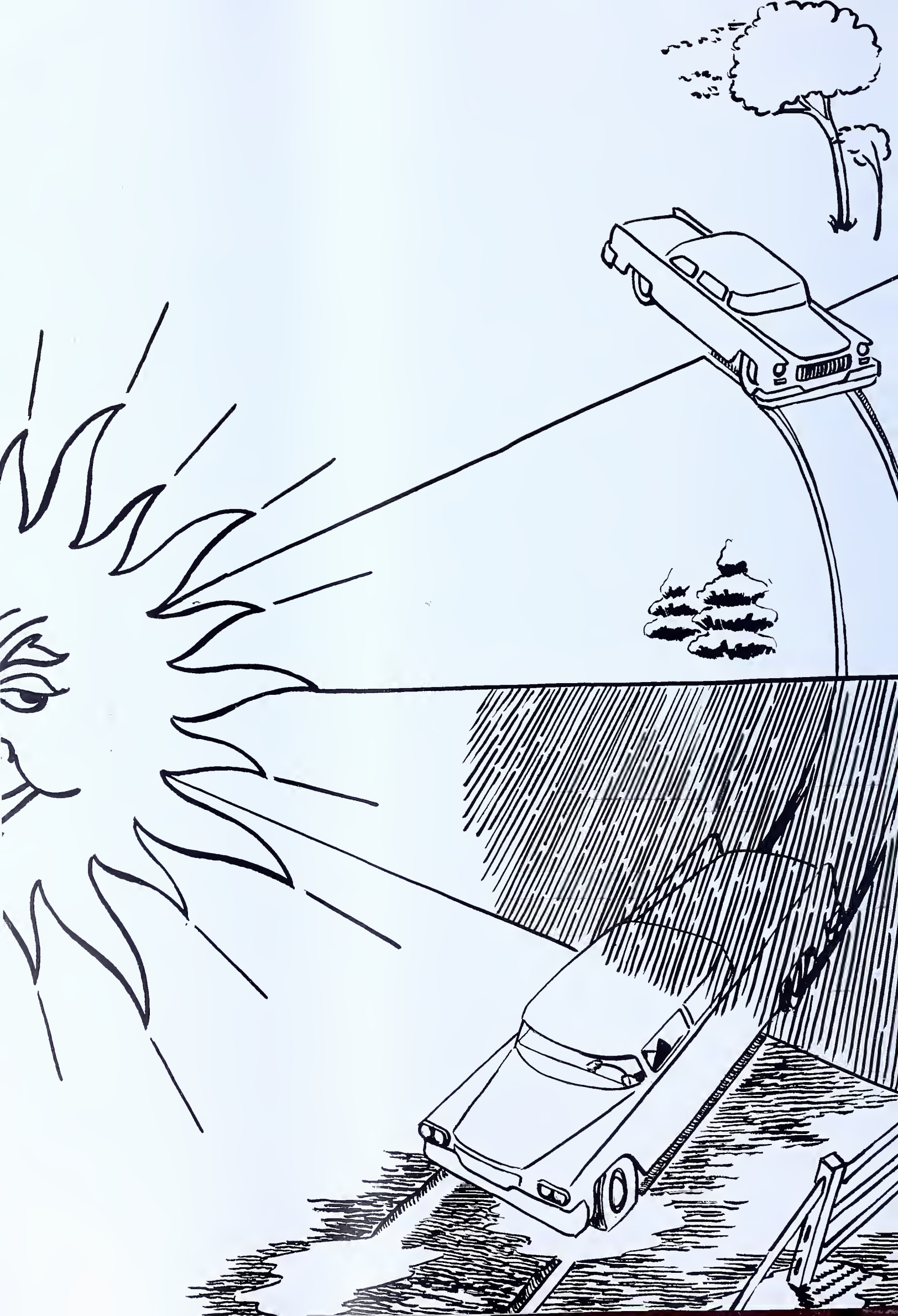
In an evacuation, only courtesy, cooperation, and careful driving can prevent disastrous traffic jams. Learn and observe these rules:

1. Keep your engine in proper mechanical adjustment
2. Drive at rate between 30-40 miles per hour to get most mileage
3. Remember you can push or pull another car with little increase in gasoline consumption
4. Obey police, CD personnel, and other authorities
5. If you have room, pick up walking evacuees
6. Don't crowd or try to beat the other fellow
7. If your car is disabled, get it off the road
8. If traffic is stalled, be patient. Blowing horn or becoming impatient may cause others to panic

CHAPTER VI

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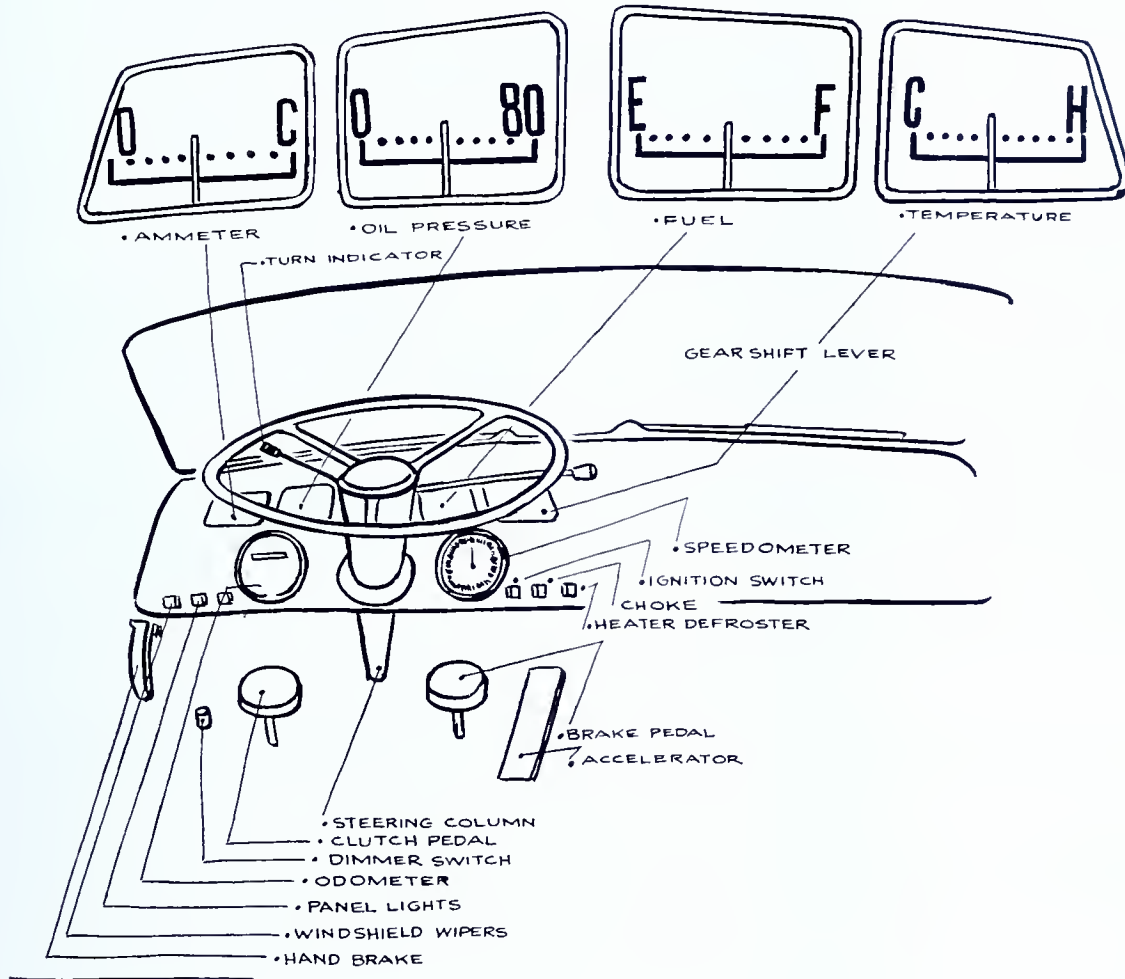
Procedure for Good Practice Driving Instruction



CHAPTER VI

Procedure for Good Practice Driving Instruction

(For both Standard and Automatic Transmission)



Introduction: The New Driver—Suggested Plan for Practice Driving

A suggested plan of practice driving for the new driver, in a gearshift car and/or an automatic car, is presented in logical sequence in the units which follow this introduction. Proficiency in the skills in the order presented in each unit is necessary since the more advanced driving skills are based on the simpler ones.

Practice driving involves the following factors: (1) the type of car used (standard or automatic transmission); (2) organization of method of instruction; and (3) provisions for effective observation.

Regardless of the type of car used for instruction, the main objectives of driver education can be attained. Mastering the mechanical skills of driving are important only when used as a part of the overall plan of teaching correct driving habits and developing a proper driving attitude. The instructor to attain the true objectives of practice driving must always present his instruction with these aims in mind.

Practice driving instruction falls into six distinct phases: (1) explanation; (2) demonstration; (3) observation; (4) practice; (5) evaluation; and (6) reteaching.

The practice driving instructor who is understanding and sympathetic with his pupils' efforts helps them to develop self-control and confidence. He should give directions in a clear, low tone of voice and in a calm manner so as not to cause confusion and nervousness. The statements and terms used in teaching should be expressed

clearly and conform exactly with the movements necessary in performing the skill. The inexperienced driver should be directed with patience. Demonstrations should always be made with emphasis on the key points that contribute to correct driving.

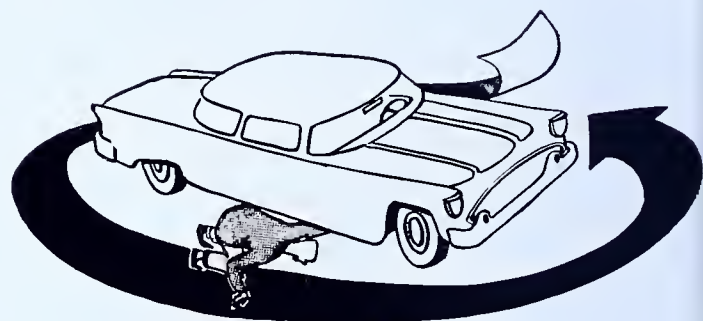
UNIT 1.—PREPARING TO DRIVE

A. STANDARD TRANSMISSION

The formation of correct habits in the preliminary checks and movements essential to preparing to drive a standard transmission car may be considered the most vital learning experience for the pupils.

In these preliminary instructions and practices, habits are formed and attitudes relating to the car, to other users of the highway, and to the rules and regulations of the road are inculcated in the new driver. These habits and attitudes determine the type of driver finally placed on the road.

Location: An off-street practice area or an area comparatively free of traffic



TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teach pupils to form the habit of checking the exterior condition of the car before entering.	1. Before entering the car a. Check the exterior of car. b. Check for any obstruction near the car (branches, boxes, broken glass). c. Check the tires for air pressure, cuts, bruises. d. Clean the windshield and windows.
2. Teach pupils to form the habit of entering the automobile correctly.	2. Entering the car a. Car parked parallel to the curb—get in from the curb side. b. Car parked at angle to curb or on a private drive—passengers get in from either side.
3. Teach pupils to form the habit of making interior checks and adjustments efficiently.	3. Making interior checks and adjustments a. Lower window reasonable distance to protect against carbon monoxide gas. b. Check windows from the interior for clear vision. c. Adjust the seat. d. Assume good driving posture (do not lean on the window sill or arm rest). e. Concentrate your vision on the road ahead and not at the front of the car. f. Adjust the rear view mirror so vision is clear for 200 feet. g. Remove any materials from back window shelf that may interfere with vision. h. Check front and rear doors to be certain that they are latched.
4. Teach pupils to form the habit of making periodic checks of oil, battery, and radiator fluid before driving.	4. Check gauges a. Look at the fuel gauge to see if you have enough gasoline; check oil gauge for oil pressure. b. Note the position of the hand on temperature gauge. c. Check the ammeter gauge on indicator.

5. Teach pupils to form the habit of checking: safety devices; control devices; and starting devices.

5. Check other devices, as follows:

- a. Safety devices
 - (1) Try windshield wiper
 - (2) Try horn
 - (3) Try turn signals
 - (4) Turn on light switch
- b. Examine and try control devices
 - (1) Steering wheel
 - (2) Clutch pedal
 - (3) Gearshift
 - (4) Accelerator
 - (5) Foot brake pedal
 - (6) Parking brake

Note: Location and type of starter device, gauges, and parking brake vary with different models or makes of cars.

- c. Examining the starter devices
 - (1) Ignition switch
 - (2) Choke
 - (3) Starter
 - (4) Throttle

6. Teach pupils how to start and stop the engine correctly.

6. Starting and stopping the engine

- a. Starting the engine
 - (1) Depress the clutch, keep clutch pedal depressed and place foot lightly on accelerator.
 - (2) Turn key to "on" or "start" position.
 - (3) Push or step on starter.
 - (4) Turn off engine and repeat procedure.
- b. Stopping the engine
 - (1) Shift to low gear (keep clutch pedal depressed).
 - (2) Turn off ignition and lock. Release the clutch pedal.

7. Teach pupils how to prepare to drive.

7. Preparing to drive

- a. Check the gear lever for neutral position by moving it upward and downward.
- b. Depress the clutch pedal and keep it in all through starting process.
- c. Put right foot on accelerator and press it to the floor, hold for a second, then release. When engine is cold this sets automatic choke and increases the idling speed according to temperature.
- d. When starting a warm engine hold accelerator one-fourth to one-half way down. Do not pump it.
- e. If car is equipped with hand throttle and choke, adjust according to needs.
- f. Turn the ignition on and press the starter device; release starter as soon as engine starts.
- g. If you are in doubt as to whether the engine has started, press accelerator to check. Do not try the starter again until you are sure the engine has not started.
- h. If the engine should flood, depress accelerator fully to open choke.

8. Teach pupils to form the habit of leaving the car properly

8. Leaving the car

- a. Set the parking brake.
- b. Close and lock the windows.
- c. Be certain you have the key in your possession when getting out of the car.
- d. You should be last getting out and should leave on the curb side of the car.
- e. Lock the doors.

B. AUTOMATIC TRANSMISSION

Automobile manufacturers have developed several types of automatic transmissions, but basically they are very much the same.

The operation of cars equipped with the various types of automatic transmissions is very similar. When the new driver is learning to drive cars with automatic transmissions, it is important that he prepare himself against dangers that can result from previously formed habits established while operating the standard

transmission car. It is essential that the manufacturer's instructional manual be followed in the operation of automatic transmissions.

Except for the type of control devices used in starting and stopping the car, the teaching procedures for the car with automatic transmission are the same as those used for the car with standard transmission, as stated in Part A of this Unit.

Location: An off-street practice area

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teach pupils to form the habit of making interior checks and adjustments.	1. Examine and try the gear selector device and selector positions in addition to the control devices listed for the car with standard transmission a. Selector positions and selector device (1) The gear selector positions are not standardized. (2) There may be more selector positions on the panel of one make of car than on another. (3) The positions may be labeled differently and be arranged differently in relation to each other. (4) The car may have lever and panel or push-button type of gear selection. (5) The car may be automatic with or without clutch pedal. (6) With few exceptions, automatic cars have a transmission that can be locked by moving gear selector to "P" or "R". In most automatic cars the starter will not work unless the gear selector is in "N" (Neutral) or "P" (Park). In others, if you press or turn the starter device, the gear selector will move to "N" automatically. All automatic cars will start in the "N" position.
2. Teach pupils how to start engine.	2. Starting the engine a. Move gear selector device to "N" position before pressing or turning starting device. b. Under normal temperature conditions (warm) depress accelerator about one-half c. Put right foot on accelerator, press to the floor, then release it when starting a cold engine. d. Keep foot on accelerator to give it a small amount of gas if needed. e. Turn ignition on. f. Press or turn starter device. g. Warm the engine slowly by pressing lightly on the accelerator. h. Do not race the engine. However, notice how engine speed increases as pressure is put on the accelerator. i. Automatic with clutch pedal—if car has automatic transmission with a clutch pedal, depress clutch pedal before moving gear selector to "N" position.
3. Teach pupils how to stop engine.	3. Stopping the engine—turn off ignition.

UNIT 2.—DRIVING IN LOW GEAR

A. STANDARD TRANSMISSION

Location: A level part of the practice area with marked starting and stopping points and little or no traffic

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching pupils to shift into low gear correctly	1. Shifting to low gear from neutral position. a. Depress the clutch pedal completely. b. Check for the neutral position by moving the gear shift lever up and down. c. With palm up, lift the gear lever and pull it toward you into low gear.
2. Teaching how to move the car in low gear smoothly	2. Moving the car a. Let the clutch pedal come out under control to the friction point (where clutch takes hold). b. Release the parking brake. c. Accelerate slowly and let the clutch pedal come out slowly, controlling the movement of the car with the clutch.
3. Teaching how to move the car in a straight line	3. Steering a. With the palm down, place the left hand at 10 o'clock on the steering wheel and with the palm up, place the right hand at 4 o'clock. b. Turn the top half of the steering wheel in the direction you want the car to move, whether driving forward or backward. c. Keep eyes on the road ahead or in direction car is moving. d. Drive as near to the right curb as possible, steering car in straight line.
4. Teaching how to stop the car in low gear	4. Stopping the car while in low gear a. Check car position in relation to other traffic. b. Depress clutch pedal completely. c. Remove right foot from accelerator pedal and place on brake pedal using even pressure. d. Move gear lever to neutral. e. Turn off ignition. f. Let clutch pedal out. g. Set parking brake. h. Remove foot from brake pedal.

B. AUTOMATIC TRANSMISSION—USING THE STARTING RANGE

Location: A level part of the practice area with marked starting and stopping points and little or no traffic

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching how to move gear selector to car-starting position	1. Moving the selector device a. Driving range position (1) Driving range position (D) is the selector position under normal starting conditions for automatic cars. (2) The automatic car may have one to four gear ranges under Drive (D) position. (3) With few exceptions the car will start from a stationary position in low range when the selector is moved to Drive (D) position. b. L or Lo (low gear) (1) The gear selector device is moved to L or Lo (low gear) position for extra power, heavy pulling, rocking out of mud or snow, and engine braking. (2) Gas consumption can be cut down with some automatic cars if car starts are made in L or Lo

2. Teaching how to move the car

2. Allowing the car to move

a. Automatic without clutch pedal

- (1) Warm the engine slowly.
- (2) Place the right foot on the brake pedal.
- (3) Do not place gear selector lever in "D" while accelerating engine.
- (4) Move the selector device to proper position for putting car in motion.
- (5) Release parking brake.
- (6) Never release parking brake when the selector device is in parked position.
- (7) Control car's movement by gradually easing foot from brake pedal; otherwise, car may start unexpectedly.
- (8) Place right foot on accelerator and press very lightly.
- (9) Practice pressure control on the accelerator to move the car slowly and gradually increase pressure on the accelerator as needed.

Hard pressure and a fast release of pressure on the accelerator may cause the engine to stall.

b. Automatic with clutch pedal

- (1) Put right foot on brake pedal.
- (2) Depress clutch pedal with left foot.
- (3) Move gear selector to proper position for putting car in motion.
- (4) Release parking brake.
- (5) Check in rearview mirror and over left shoulder.
- (6) Give starting signal.
- (7) Let clutch pedal come out under control.
- (8) Move right foot to accelerator and press very lightly.
- (9) Increase speed gradually.

3. Teaching pupils to stop the car properly

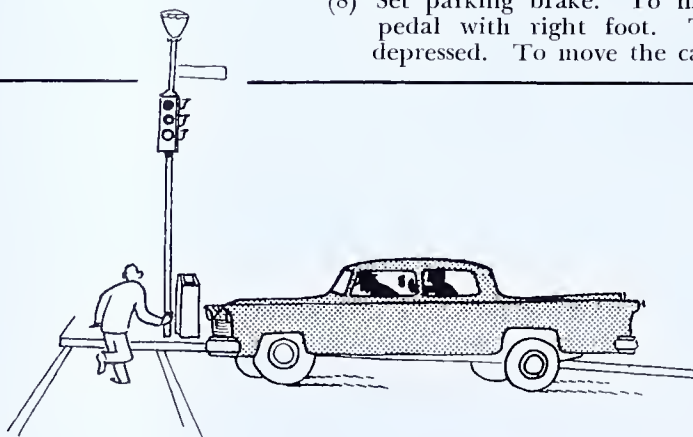
3. Bringing the car to a stop

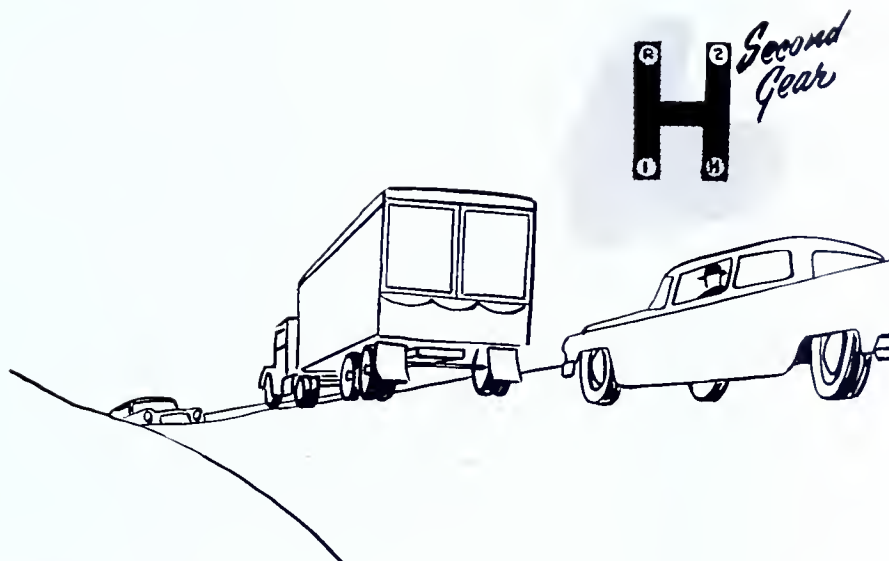
a. Automatic without clutch pedal

- (1) Give signal; move to right curb.
- (2) Take right foot from accelerator and place it on the brake pedal.
- (3) Bring car to a stop by applying even pressure on the brake pedal—ease pressure as car is about to stop, then reapply gently.
- (4) Move selector device to desired position.
- (5) Set parking brake.
- (6) Make sure car has completely stopped before moving gear selector device to park position.

b. Automatic with clutch pedal

- (1) Signal—move to right curb.
- (2) Depress brake gently with right foot.
- (3) Give stop signal—bring car to stop smoothly.
- (4) Depress clutch pedal with left foot.
- (5) Move gear selector to desired position.
- (6) Turn ignition off.
- (7) Take foot from clutch pedal.
- (8) Set parking brake. To make a brief stop, depress brake pedal with right foot. The clutch pedal need not be depressed. To move the car, accelerate gently.





UNIT 3.—DRIVING IN SECOND GEAR

A. STANDARD TRANSMISSION

Location: Off-street practice area or roadway with little traffic

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching how to shift from low to second gear	1. Shifting from low to second <ol style="list-style-type: none"> Move the car forward in low gear; increase pressure on the accelerator until the car is moving 10 to 15 m.p.h. Be sure the car is moving in a straight line and the left hand is in the best steering position (10 o'clock) before attempting to shift. Look at the road, not the clutch pedal. With the left foot, depress the clutch pedal, place right hand on gear lever, palm down, and with a slight forward downward pressure on the gearshift lever, move it through neutral—continue on to second—accelerate gradually and let clutch pedal come all the way out slowly. Keep foot on clutch pedal until it is completely out. Replace right hand on the steering wheel. Remove foot from clutch pedal.
2. Teaching how to stop the car in second gear	2. Stopping from second gear <ol style="list-style-type: none"> Check car position in relation to other traffic. Give stop signal, slow down, move to right curb. When car has slowed down to about 5 m.p.h. depress clutch pedal. Remove foot from accelerator and depress the brake pedal, using even pressure. As car comes to a stop, ease brake pressure slightly to come to a smooth stop.
3. Teaching how to shift from second to low gear	3. Shifting from second to low <ol style="list-style-type: none"> Bring car to a stop. Keep clutch pedal depressed. With palm down, move gear lever to neutral. Turn palm up; move gear lever to low.

B. AUTOMATIC TRANSMISSION—UPSHIFTING

Location: Off-street practice area or street with very little traffic

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching how to regulate car speed to bring about automatic upshift	1. Automatic upshifts for cruising speed <ol style="list-style-type: none"> Move the car forward by placing the gear selector device in the starting range position. In automatic cars with two or more gear ranges under the starting range position, the transmission automatically shifts to a higher gear range as car speed is increased. The upshifting speed varies with the type of transmission. The automatic upshift takes place when the car speed has been increased to 12-20 m.p.h. Some automatic transmissions have a higher cruising range than others and will automatically shift through several ranges. The automatic car with the clutch pedal is automatically upshifted by lifting the foot momentarily when the car speed has been increased to 15-17 m.p.h.
2. Teaching pupils to make manual upshift	2. Manual upshifts <ol style="list-style-type: none"> Manual upshifts can be made by moving the selector device to a higher range position at any desired car speed. Gas consumption can be cut down with some types of automatic cars by placing the selector device in L or Lo position to move the car and then move the selector device to Drive after increasing the speed to 12-15 m.p.h. Do not move the gear selector to N and allow car to coast.

UNIT 4.—SHIFTING GEARS (SECOND TO HIGH; HIGH TO SECOND)

A. STANDARD TRANSMISSION

Location: A rather long, straight area with very little traffic

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching how to shift from second to high gear	1. Shifting from second to high gear <ol style="list-style-type: none"> Steer car in straight line staying on the right side of the road. Press the accelerator, increasing the speed of the car. Depress the clutch pedal completely, lift foot from accelerator. Place the right hand palm downward on the gear lever, move it to neutral and on downward to high gear—let clutch pedal come to the friction point—hesitate—let it come completely out. Press accelerator or maintain even speed.
2. Teaching how to stop in high gear	2. Stopping the car while in high gear <ol style="list-style-type: none"> Check car position in relation to other traffic. Move to right curb. apply pressure on the foot brake pedal and slow car before depressing the clutch pedal. (Keep clutch pedal engaged as long as possible.) Release brake pressure slightly as car stops.
3. Teaching how to shift from high to second gear	3. Changing from high to second gear <ol style="list-style-type: none"> There are driving situations that can be handled more efficiently by shifting from high to second gear, such as: <ol style="list-style-type: none"> To drive at a slower speed To reduce speed and retain traction To build up speed To maintain speed and have more power To increase speed and have more available power To use engine to assist in braking

- b. When shifting from high to second to adjust for changing conditions—
 - (1) Check traffic situation.
 - (2) Lift foot from the accelerator—use foot brake if necessary to slow down.
 - (3) Reduce speed to 15 m.p.h. or slower before shifting.
 - (4) Depress clutch pedal completely.
 - (5) With palm down, place hand on gear lever, press forward lightly and move lever upward to neutral—hesitate—move upward to second gear.
 - (6) Accelerate slightly.
 - (7) Release clutch pedal smoothly and at the same time increase acceleration.
 - (8) Allow car to resume appropriate speed.

B. AUTOMATIC TRANSMISSION—DOWNSHIFTING

Location: A rather long, straight street with very little traffic
An off-street practice area

TEACHER OBJECTIVES

INSTRUCTIONAL OUTLINE

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Teaching the use of the manual downshift 2. Teaching the use of the automatic downshift | <ol style="list-style-type: none"> 1. Manual downshift <ol style="list-style-type: none"> a. Downshifting— <ol style="list-style-type: none"> (1) Downshifting is manipulating the selector device or accelerator so the transmission will change from a higher gear range to a lower one. (2) Downshifting can be accomplished in three ways: by moving the gear selector device to a lower range position; by pressing fully on the accelerator; by reducing car speed. b. Manual shift <ol style="list-style-type: none"> (1) The selector device can be moved to a lower forward range when the car is stopped or is moving at any moderate speed. (2) When the car is traveling at normal driving speeds and a manual shift to a lower range position is made, the transmission will not automatically shift out of the lower range. (3) If automatic car is equipped with clutch pedal, depress clutch pedal before moving selector device. (4) Use the manual shift in a lower gear range position: to maintain traction at a slower even speed; to use downshift before car has slowed down to automatic downshifting point; to use engine to assist in braking; and, to secure more power when needed. 2. Automatic downshift <ol style="list-style-type: none"> a. The transmission automatically downshifts when you press fully on the accelerator. b. This downshifting is known as shifting to the "passing gear." c. If you use the automatic downshift, the transmission will automatically shift out of the lower range when the car speed increases to the maximum low-range speed. d. The maximum lower-range speed for most cars with automatic transmissions is from 42 to 62 m.p.h. depending on the type of transmission in the car. e. The transmission will automatically downshift to a lower range when car speed is decreased to downshifting speed. f. The automatic downshift speed is from 3 to 20 m.p.h. depending on the type of automatic transmission in the car. g. Decrease car speed by easing pressure on the accelerator and by placing right foot on the brake pedal. |
|---|---|

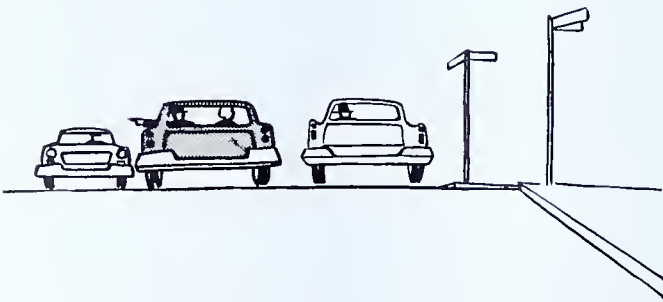
UNIT 5.—TURNING AT INTERSECTIONS

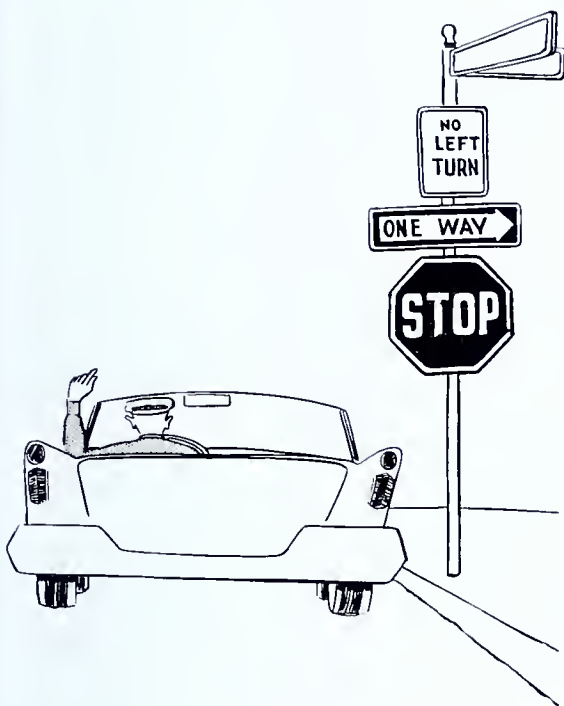
A. STANDARD TRANSMISSION

Location: The best practice area is a residential section with level parallel streets having a large number of cross streets with light traffic.

An off-street practice area with painted parallel streets and cross streets

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching hand-over-hand steering	1. Steering of car in turns <ol style="list-style-type: none">Place hands in proper position on the steering wheel.A driver with a short arm reach may not be able to take very long sweeps with the steering wheel. In this case, the hands would be moved to different wheel positions than those listed under right and left turns when regrasping the steering wheel.Right turns—Left hand moves from 10 o'clock to 3—right hand is taken from the steering wheel when the left hand is directly over the right—place right hand at about 11 o'clock and move it to 4—regrasp wheel with the left hand and continue hand-over-hand turning until the turn is made.Left turns—Right hand moves from 4 o'clock to 10—left hand is taken from the wheel when right hand is directly over the left—place left hand at 1 o'clock, regrasp wheel with right hand, and continue turning hand over hand until turn is completed.
2. Teach pupils to signal properly, using manual and mechanical signals.	2. Using signals properly at intersections <ol style="list-style-type: none">Hand signals are to be used for right and left turns supplemented by mechanical turn signals.Turn signals are flashed by moving the turn signal device in the same direction as the top half of the steering wheel is moved.Prepare to make turns at intersections by signalling and moving into the desired lane at least a block ahead of where you will turn.Signal—give both hand and mechanical turn signal if necessary to alert other drivers. Slow down and shift to second gear.
3. Teach pupils to make turns at intersections properly.	3. Intersection turns <ol style="list-style-type: none">Left intersections turns<ol style="list-style-type: none">Signal; move into the lane to the right of and nearest to the center line of the highway.Observe traffic situation. Both lanes of traffic must be crossed.Give left signal, slow down, and shift to second gear.If a car is approaching from the opposite direction, move into the intersection slowly and stop if necessary to wait for car to pass through the intersection.Check traffic in rearview mirror.Check to see if a car behind you is starting to pass on the left.If a car behind attempts to pass, slow down and stop if necessary.Check for oncoming traffic approaching the intersection.Turn the steering wheel in long sweeps to the left when the front of the car is even with the intersection.Turn the steering wheel at a speed so the path of the car will form an arc with the right wheels passing through the center point of the intersection.Move through intersection.The car should be on the right side of the road near the center line at the completion of the turn.Release steering wheel, allowing it to move through your hands while returning to a straight-ahead position.Right intersection turns<ol style="list-style-type: none">Signal and move into traffic lane to the extreme right side of highway.Observe traffic situation.Give right signal, slow down, and shift to second a reasonable distance from the intersection. The car should be 4 or 5 feet from the curb.





4. Teaching how to make turns after stopping at street intersections with stop signs

- (4) Start to turn the steering wheel hand over hand to the right when the front of the car is even with the point where the curb line starts to bend.
 - (5) Stay on the right while making turn; be on the lookout for cars parked close to the intersection.
 - (6) Release steering wheel, allowing it to move through your hands while returning to a straight-ahead position.
4. Making a turn in low gear from the stopped position
 - a. Decide turning direction and signal before bringing car to a stop.
 - b. Line the left side of the car up with the center point of the intersection and move the car straight ahead for left turn.
 - c. Move the car to the right for right turn.
 - d. Bring car to stop back of the crosswalk.
 - e. Keep clutch pedal in.
 - f. With palm down, place hand on gear lever—move it to neutral, turn palm up and move lever to low.
 - g. Press accelerator. Start when intersection is clear.
 - h. Let clutch pedal come to the friction point under control—hesitate—allow it to come on out a very short distance and hold, permitting the car to move ahead until you can see the highway is clear. Let the clutch come completely out.
 - i. Complete turn and drive straight ahead on highway, shifting from low to second to high gear.

B. AUTOMATIC TRANSMISSION

Location: The best practice area is a residential section with a series of level parallel streets having a large number of cross streets with light traffic.

An off-street practice area with painted parallel streets and cross streets

TEACHER OBJECTIVES

INSTRUCTIONAL OUTLINE

- | | |
|--|--|
| 1. Teaching hand-over-hand steering | 1. Hand-over-hand steering—see Standard Transmission, Page 64, Unit 5. <ol style="list-style-type: none"> a. Right turns—See page 64, Unit 5. b. Left turns—See page 64, Unit 5. |
| 2. Teaching how to make turns at intersections properly; to signal properly, using hand and mechanical signals | 2. Intersection turns—follow instructions on page —, with the following exceptions: intersection turns are made by reducing the speed to approximately 8 m.p.h.; by car's automatic downshift; or by moving the selector device to a lower range position. <ol style="list-style-type: none"> a. Left intersection turns—follow instructions on page — with the following exception: make turn at reduced speed. b. Right intersection turns—follow instructions on page — with the following exception: make turn by reducing speed when using automatic downshift or manual downshift. |
| 3. Teaching how to make turns after stopping at stop street intersections | 3. Making turns from stop position—follow instructions on page — with the following exceptions: make turn by reducing speed; use automatic downshift or manual downshift; allow the car to creep forward by easing pressure on foot brake pedal; move selector device to N when waiting for traffic to clear. |

UNIT 6.—MANEUVERING THE CAR

A. STANDARD TRANSMISSION

Location: An off-street practice area with lines painted to limit and assist in determining the turning area
A dead-end street with very little traffic

TEACHER OBJECTIVES

INSTRUCTIONAL OUTLINE

1. Teaching how to back the car

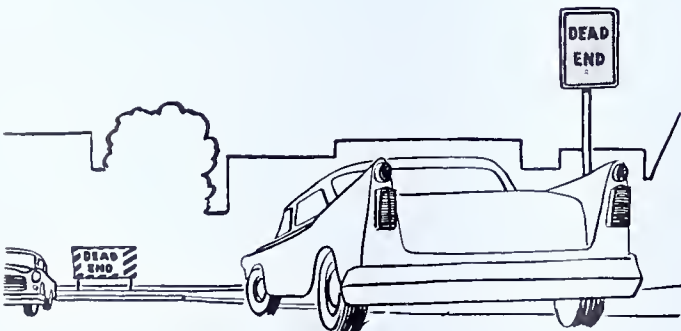
1. Backing the car
 - a. Practice shifting to reverse gear.
 - b. Place right arm along back of seat.
 - c. Place left hand at top of steering wheel.
 - d. Both hands may be used if necessary.
 - e. Driver should turn head to right and look through rear window.
 - f. Moving the car
 - (1) Depress clutch pedal completely.
 - (2) Check gearshift lever for neutral position.
 - (3) Palm up, lift gear lever and move it to reverse.
 - (4) Accelerate slightly. (Do not race motor.)
 - (5) Release clutch pedal slowly to friction point—hesitate—release clutch pedal until car is moving at desired speed and hold clutch pedal at that point.
 - g. Control speed of car by pressing the clutch pedal in and out through the friction point.
 - h. Turn steering wheel in the direction the car is to move.
 - i. Check to front and left occasionally to observe traffic conditions and path of car.

2. Teaching how to turn around properly at intersections

2. Backing car from street to turn around
 - a. Car moving forward—give stop signal.
 - b. Stop car parallel to curb, rear wheels about 3 or 4 feet ahead of intersecting curb line.
 - c. Check traffic conditions in all directions.
 - d. Using two hands on the steering wheel, follow all other procedures listed for backing the car.
 - e. Using hand-over-hand method, start turning the steering wheel to the right as soon as car starts to move.
 - f. When back of car is almost straight in side-street entrance, turn steering wheel to left, hand over hand, until car is parallel with curbing.
 - g. Stop the car.
 - h. Move gearshift lever to neutral.

3. Teaching pupils to turn car within a limited area

3. Turning car around in limited turning area
 - a. Car moving forward—give stop signal.
 - b. Stop car parallel to and approximately 6 inches from curbing.
 - c. Shift to low gear; accelerate slightly.
 - d. Move clutch pedal to point where car moves.
 - e. Controlling speed of car with clutch, turn the steering wheel to the left as far as possible.
 - f. Before stopping the car at the limit of the turning area, turn the steering wheel to the right as far as possible.
 - g. Stop the car; shift to reverse.
 - h. Check traffic.
 - i. Controlling the speed of the car with the clutch pedal, back the car toward right.
 - j. Before reaching the turning area limit to the rear, turn the steering wheel to the left and stop.
 - k. If car drifts backward after this stop, movement of the car may be controlled with parking brake or foot brake.
 - l. Shift into low gear.
 - m. Controlling the speed of the car with the clutch pedal, move forward and to the left.
 - n. When car is parallel to curbing, stop.
 - o. The width of the turning area will determine the number of times the car must be moved forward and backward to complete turning within that area.



B. AUTOMATIC TRANSMISSION

Location: An off-street practice area with lines painted to limit and assist in determining the turning area
A dead-end street with very little traffic

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching how to back the car	1. Backing the car <ol style="list-style-type: none"> Place right arm along back of seat. Place left hand at top of steering wheel, or both hands may be used if necessary. Driver should turn head to the right and look through rear window. Moving the car <ol style="list-style-type: none"> Place foot on brake pedal. Move selector device to R (Reverse). Control the movement of the car by releasing pressure gradually on brake pedal. Accelerate slightly if power is needed. Turn steering wheel in the direction the car is to move. Check to front and left occasionally to observe traffic conditions and path of car.
2. Teaching how to turn around properly at intersections	2. Backing car from street to turn around—follow instructions for Standard Transmission, Unit 6 A, Section 2.
3. Teaching pupils to turn car within a limited area	3. Turning car around in limited turning area—follow instructions for Standard Transmission, Unit 6, A, Section 3.

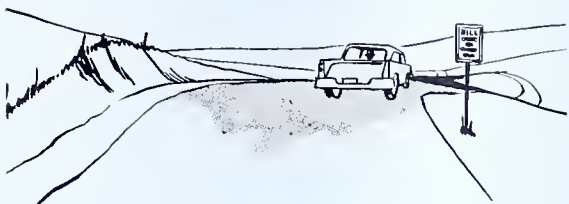
UNIT 7.—DRIVING ON GRADES

A. STANDARD TRANSMISSION

Location: A street or streets where traffic is light and a slight or steep upgrade exists

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching pupils to stop and start on an upgrade	1. Stopping and starting on an ungrade <ol style="list-style-type: none"> Stopping on upgrade <ol style="list-style-type: none"> Select the spot to stop. Give correct signal; move car to extreme right. Give stop signal. Brake smoothly. Depress clutch pedal. Stop. Set the parking brake. Starting on upgrade <ol style="list-style-type: none"> Depress clutch pedal. Move gear lever to low gear. Press accelerator. Use enough gas so car can pull away smoothly. Let clutch pedal come out to the place where the car exerts a slight forward pull against the parking brake. Check in the rearview mirror and look over the left shoulder. Release parking brake—let the clutch pedal come out slowly—past the friction point—increase pressure on the accelerator. Starting on slight upgrade <ol style="list-style-type: none"> It is permissible to slip the clutch on a slight grade. Hold the car on the grade with foot brake pedal. Depress the clutch pedal. Move the gear lever to low. Take foot from brake pedal—place it on the accelerator with no hesitation (lift foot; do not slide it), pressing steadily on the accelerator—with controlled speed let the clutch pedal come to the friction point as the gas is applied. Hold the clutch pedal for a split second, controlling the movement of car with the clutch. Let clutch pedal come completely out.

2. Teaching pupils to drive downgrade



2. Driving downgrade

- a. Drive down a slight grade in high gear.
- b. Drive down a steep grade in second gear.
- c. Use a pumping motion on the foot brake.
- d. The shift to second should be made before starting down the grade.
- e. On a very steep grade it may be necessary to drive in low gear.

3. Learning to back upgrade and downgrade

3. Backing on a grade

a. Backing upgrade and downgrade

- (1) Check traffic situation.
- (2) Make certain no cars are parked in an interfering position.
- (3) Move to right side of highway.
- (4) Give stop signal, bring car to a stop as close to the right curb as possible.
- (5) Set parking brake.
- (6) When backing up and downgrade, steer the car by placing the left hand on the steering wheel and the right arm on the back of the front seat. Better road vision may be secured with this procedure.

b. Backing upgrade

- (1) Depress clutch pedal.
- (2) Move gear lever to reverse gear.
- (3) With right foot, press on accelerator.
- (4) Let clutch pedal come to the friction point—hesitate.
- (5) Release parking brake.
- (6) Turn head to left, then right, and look through rear window.
- (7) Let clutch pedal come out slowly, controlling speed of car with clutch pedal.

c. Backing downgrade

- (1) Depress the clutch pedal.
- (2) Shift to reverse gear.
- (3) Put foot on brake pedal.
- (4) Release parking brake.
- (5) Turn head to the left, then right, and look through rear windows.
- (6) Keep clutch pedal in and ease pressure on foot brake, permitting the car to move backwards slowly.

B. AUTOMATIC TRANSMISSION

Location: A street or streets where traffic is light and where a slight or steep upgrade exists

1. Teaching pupils to stop and start on an upgrade

1. Stopping and starting on an ungrade

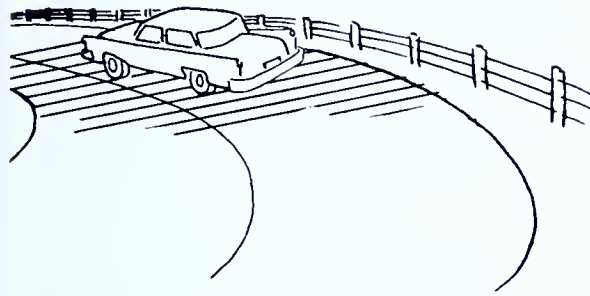
a. Stopping on upgrade

- (1) Move car to extreme right.
- (2) Give stop signal.
- (3) Take right foot from accelerator and place it on brake pedal.
- (4) Move selector device to desired position (N or P).
- (5) Set parking brake.

b. Starting on upgrade

- (1) Move selector device to L or Lo.
- (2) Take right foot from brake pedal and place it on accelerator.
- (3) Check in the rearview mirror and look over the left shoulder.
- (4) Give starting signal.
- (5) Press lightly on the accelerator.
- (6) Release parking brake when a slight pull is being exerted against it.

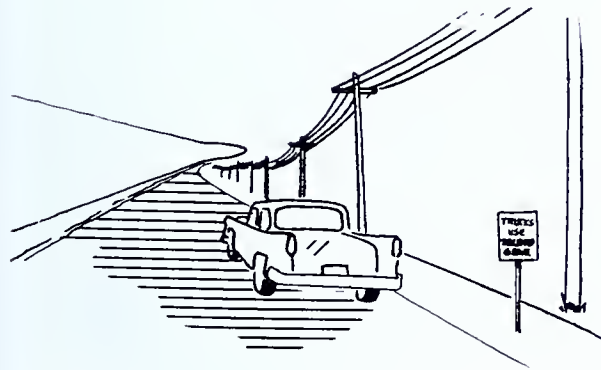
2. Teaching pupils to drive downgrade



2. Driving downgrade

- a. Drive downgrade with the selector device in D (Drive) position.
- b. Use pumping motion on foot brake.
- c. Drive down a steep grade by moving the selector device to a lower range.

3. Teaching pupils to back upgrade and downgrade



3. Backing upgrade or downgrade—see instructions for Standard Transmission, Unit 7, page 68

a. Backing upgrade

- (1) Place right foot on brake pedal.
- (2) Move selector device to R (Reverse).
- (3) Release parking brake.
- (4) Ease brake pressure gradually.
- (5) Place right foot on accelerator.
- (6) Turn head to left, then right, and look through rear window.
- (7) Press gradually on the accelerator as needed.

b. Backing downgrade

- (1) Place right foot on brake pedal.
- (2) Move selector device to R (Reverse).
- (3) Release parking brake.
- (4) Turn head to left, then right, and look through rear window.
- (5) Ease pressure on the foot brake, permitting the car to move slowly backward.

UNIT 8.—DRIVING ON THE OPEN HIGHWAY

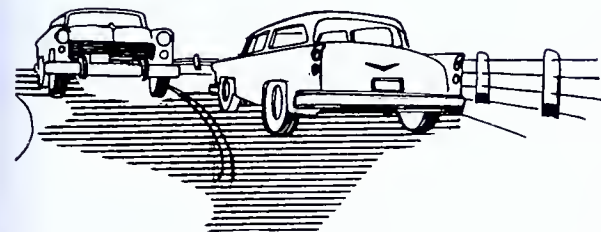
A. STANDARD TRANSMISSION

Location: A multiple-lane, open highway with curves and hills

TEACHER OBJECTIVES

INSTRUCTIONAL OUTLINE

1. Teaching pupils to drive and control a car on the open highway



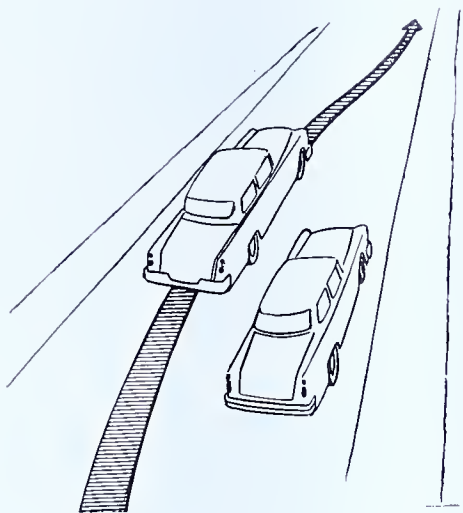
1. Driving and controlling car on open highway

a. Driving on the right side of the highway

- (1) Drive your car on the right side of the center line, a reasonable distance from the right edge of the highway.
- (2) Move your car to the right side of the highway when a car is approaching in the opposite direction.
- (3) When driving on a narrow road and the right front wheel of your car gets off the improved part of the road: (a) slow down by easing pressure on the accelerator; (b) do not use the brake; (c) steer the car back onto the road.
- (4) If you are forced to drive with both right wheels off the improved part of the highway, slow down by easing pressure on the accelerator and use light pumping motion on the foot brake pedal. With controlled steering, move the car back onto the road. (See item 16, page 45)

b. Rounding bends

- (1) Round bends by slowing down before reaching the bend. If it becomes necessary to use the brake, use light pumping motion.
- (2) Turn the steering wheel when the highway starts to bend in proportion to the sharpness of the curve; follow the road line.
- (3) When turning from one highway to another, move to the proper lane and observe traffic regulations.



- c. Control driving
 - (1) Keep your mind on driving.
 - (2) Relax, but not to the point of being neglectful of good driving practices.
 - (3) Be prepared in advance for any traffic hazard that may develop. Watch for cars parking, children playing, pedestrians walking, and animals running along the highway.
 - (4) Be on the lookout for cars backing out on the road.
 - (5) Warn other drivers and pedestrians by sounding the horn.
 - (6) If a car is parked with a driver behind the steering wheel, slow down; sound your horn and pass cautiously.
- d. Going up and down hills
 - (1) Shift before engine starts to labor when going up hill.
 - (2) On steep hills, shift to second before starting up or down.
 - (3) Wind affects steering to the point where it may demand counter pressure to the left or right on the steering wheel.
 - (4) Slow down for unprotected intersections.
 - (5) Slow down where your vision is obstructed.
 - (6) Slow down as soon as any traffic hazard is apparent.
- e. Passing
 - (1) Move to the extreme right and maintain same speed if another car traveling in the same direction attempts to pass.
 - (2) Reduce speed if your car is being passed when a car is coming in the opposite direction.
- f. Procedure for passing
 - (1) Before overtaking and passing a car going in the same direction, always be certain that there is sufficient passing distance ahead and no object or pedestrian is in an interfering position.
 - (2) Do not follow a car so closely that vision is obstructed.
 - (3) Sound the horn to inform the driver ahead of you of your intentions; check traffic to rear; give proper signal.
 - (4) After passing a car, wait until it can be seen in the rearview mirror before moving back into traffic lane.

B. AUTOMATIC TRANSMISSION

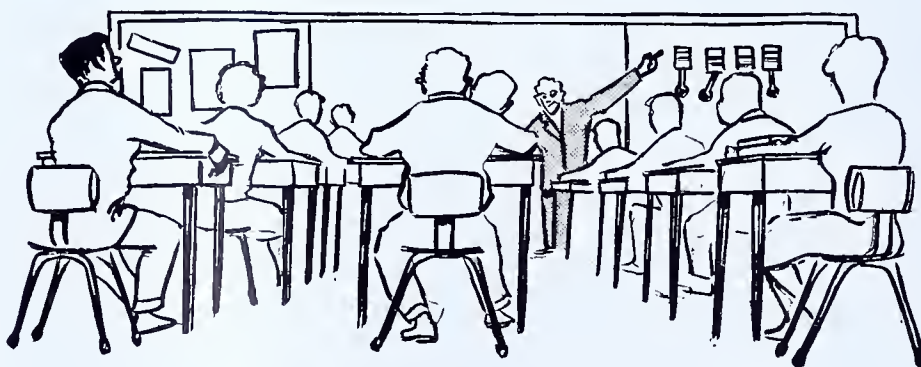
Location: A multiple-lane, open highway with curves and hills

TEACHER OBJECTIVES

1. Teaching pupils how to drive and control a car on the open highway

INSTRUCTIONAL OUTLINE

1. Driving and controlling car on open highway—Follow instructions for Standard Transmission, Part A, Unit 8, with one exception: On a very steep hill move the selector device to L or Lo before starting up or down the hill.



UNIT 9.—DRIVING IN CITY TRAFFIC

STANDARD OR AUTOMATIC TRANSMISSION

Location: City street with average traffic and with four lanes (if possible)

TEACHER OBJECTIVES

1. Teaching pupils how to use traffic lanes correctly

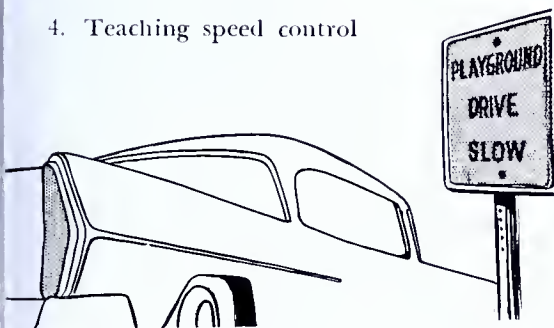
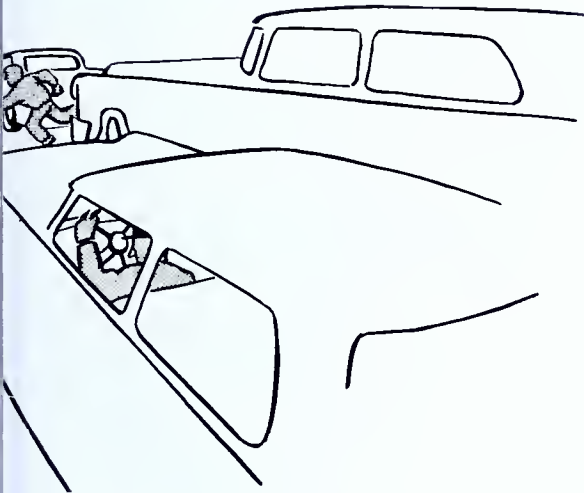
2. Teaching pupils to observe right-of-way regulations

3. Teaching how to pass in city traffic

4. Teaching speed control

INSTRUCTIONAL OUTLINE

1. Traffic lanes
 - a. Decide where you are going to turn and gradually move into the proper lane for the turn you will use.
 - b. Never weave in and out of traffic or straddle lines indicating lanes.
 - c. Signal when changing lanes.
 - d. Before executing a right or left turn, make certain the action is legal.
2. Right-of-way regulations
 - a. If you do not have the right of way, always assume the driver who does is going to insist upon his rights..
 - b. Always place the safety of others and yourself above everything else.
 - c. Give pedestrians the right of way whether they are entitled to it or not.
 - d. When stopping in a line of traffic, always stop back of the cross street entrance.
 - e. Check for the possibility of traffic entering the intersection from the right or left when approaching an intersection.
 - f. Signal and come to a complete stop back of the crosswalk for stop signs and traffic signals.
 - g. When signaled to stop by a police officer, pull to the right and stop.
 - h. Come to a complete stop at railroad crossings when red signal is flashing or train is approaching; watch for passenger buses or trucks that haul explosives and inflammable materials stopping ahead of you at railroad crossings; never shift gears while crossing railroad tracks.
 - i. Drive cautiously through a flashing yellow light.
 - j. Pull to the right and stop when an emergency vehicle is approaching.
 - k. Allow other drivers to park or pull out of parking place.
 - l. Stop for a streetcar or bus that has stopped to unload or load passengers where there is no safety zone.
3. Passing
 - a. Check to see if passing is permitted.
 - b. Be sure you have clear passing distance.
 - c. Pass only when necessary.
 - d. Do not pass a streetcar on the left except on a one-way street.
 - e. Never attempt to pass a car going in the same direction on railroad crossings.
 - f. Check both traffic lanes before passing.
 - g. Pass streetcars cautiously when they have stopped in safety zones.
 - h. Do not pass a car that is about to make a turn until you are sure of the direction the car is turning.
4. Speed control
 - a. Always drive below the posted speed limit.
 - b. Regulate your speed according to conditions.
 - c. Approach stop-and-go signal slowly so the indicated procedure can be safely obeyed.
 - d. Partial listing of situations illustrating a need for reduction of speed:
 - (1) A ball flies out on the street
 - (2) Child is standing along the street
 - (3) Approaching intersections
 - (4) Making turns
 - (5) Passing an institution for the blind
 - (6) People getting out of cars
 - (7) Passing school building



UNIT 10.—PARKING

A. STANDARD TRANSMISSION

Location: Off-street practice area with lines painted to indicate parking space
A street where traffic is light and angle parking is required
A street where traffic is light and parallel parking is required

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching angle parking	1. Angle parking <ol style="list-style-type: none">Check traffic conditionsSignal intentions.Allow plenty of clearance from parked cars.Turn sharply, centering car in parking lane.Stop car before touching curbing.Place gearshift lever in Park or in Reverse.Apply parking brake.Turn off ignition.
2. Teaching parallel parking	2. Parallel Parking <ol style="list-style-type: none">Signal intentions and slow down.Move car parallel to parking space.Check relative position of cars between which you are going to park and the curbing as you move into position to park.Stop car parallel to and two feet from car behind which you will park.Stop car when rear bumper is even with rear bumper of car behind which you will park.Move car backward slowly following outline for backing of car.As car starts to move backward, immediately turn the steering wheel to the right until the car assumes a 45 degree angle to the curb.Hesitate.Straighten front wheels while allowing car to move slowly backward.When you can sight along car behind which you are parking, turn wheels to the left, allowing the car to continue slowly in Reverse.When the front bumper of the car has passed the rear bumper of the car behind which you are parking, turn the steering wheel rapidly to the left while moving slowly backward into the parking space.Center the car in the parking space it is occupying.Prepare to leave the car.
3. Teaching parking on grades	3. Parking on grades <ol style="list-style-type: none">General instructions<ol style="list-style-type: none">Signal intentions.Move the car to a position parallel to the curb and with the right wheels approximately six inches from the curb.Allow sufficient space between cars for parking and pulling out.Parking heading upgrade<ol style="list-style-type: none">Follow parallel parking rules, Unit 10, section 2.After centering car in parking space, before stopping, turn steering wheel to the left.Depress clutch, ease car slightly backward, control speed of car with foot brake.Wheels should form a 45 degree angle with the curb.Shift to low gear.Set hand brake.Prepare to leave car.Parking heading downgrade<ol style="list-style-type: none">Follow parallel parking outline, Unit 10, Section 2.After centering car in parking space and before stopping, turn the steering wheel to the right.Depress clutch pedal, easing car slightly forward, control speed of car with foot brake.Wheels should form a 45 degree angle with the curb.Shift to Reverse gear.Set the hand brake.Prepare to leave the car.

- d Pulling out of downgrade parked position
 - (1) Start the motor.
 - (2) Shift to Reverse
 - (3) Accelerate slightly.
 - (4) Release clutch pedal to point where engine exerts slight pressure against parking brake.
 - (5) Release parking brake slowly while releasing clutch to point where car moves. Accelerate slightly if necessary.
 - (6) Align car by turning steering wheel to left.
 - (7) Stop before touching car to rear.
 - (8) Shift to low gear.
 - (9) Move forward slowly, turning wheels sharply to left.
 - (10) Check traffic.
 - (11) Signal intentions.
 - (12) Pull out into traffic when safe.

B. AUTOMATIC TRANSMISSION

Location: Off-street practice area with lines painted to indicate parking spaces

A street where traffic is light and angle parking is required

A street where traffic is light and parallel parking is required

TEACHER OBJECTIVES

INSTRUCTIONAL OUTLINE

- | | |
|-------------------------------|---|
| 1. Teaching angle parking | 1. Angle parking
Follow instructional outline for Standard Transmission, Unit 10 A, Section 1. |
| 2. Teaching parallel parking | 2. Parallel parking
Follow instructional outline for Standard Transmission, Unit 10 A, Section 2. |
| 3. Teaching parking on grades | 3. Parking on grades <ol style="list-style-type: none"> a. General instructions <ol style="list-style-type: none"> (1) Signal intentions. (2) Move car parallel to the curb with the right wheels approximately six inches from the curb. (3) Allow sufficient space between cars for parking and pulling out. b. Parking heading upgrade <ol style="list-style-type: none"> (1) Follow instructional outline for parking, Unit 10 A, Section 2. (2) After centering car in parking space, turn steering wheel to left as car is brought to a stop. (3) Shift to reverse, ease car slightly backward, control speed of car with foot brake. (4) Wheels should form a 45 degree angle with the curb. (5) Shift selector device to position designated for parking. (6) Set the hand brake. (7) Prepare to leave the car. c. Parking heading downgrade <ol style="list-style-type: none"> (1) Follow instructional outline for parking, Unit 10 A, Section 2. (2) After centering car in parking space, turn steering wheel to right as car is brought to a stop. (3) Shift to low, ease car slightly forward, control speed of car with foot brake. (4) Wheels should form a 45 degree angle with the curb. (5) Shift selector device to position designated for parking. (6) Set the hand brake. (7) Prepare to leave the car. |

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
	d. Pulling out of downgrade parked position (1) Start the motor. (2) Shift to Reverse. (3) Accelerate slightly. (4) Release parking brake slowly while moving slowly backward. (5) Align car by turning steering wheel to the left. (6) Stop before touching car to the rear. (7) Shift to low gear. (8) Move forward slowly, turning wheels sharply to left. (9) Check traffic. (10) Signal intentions. (11) Pull out into traffic when safe.

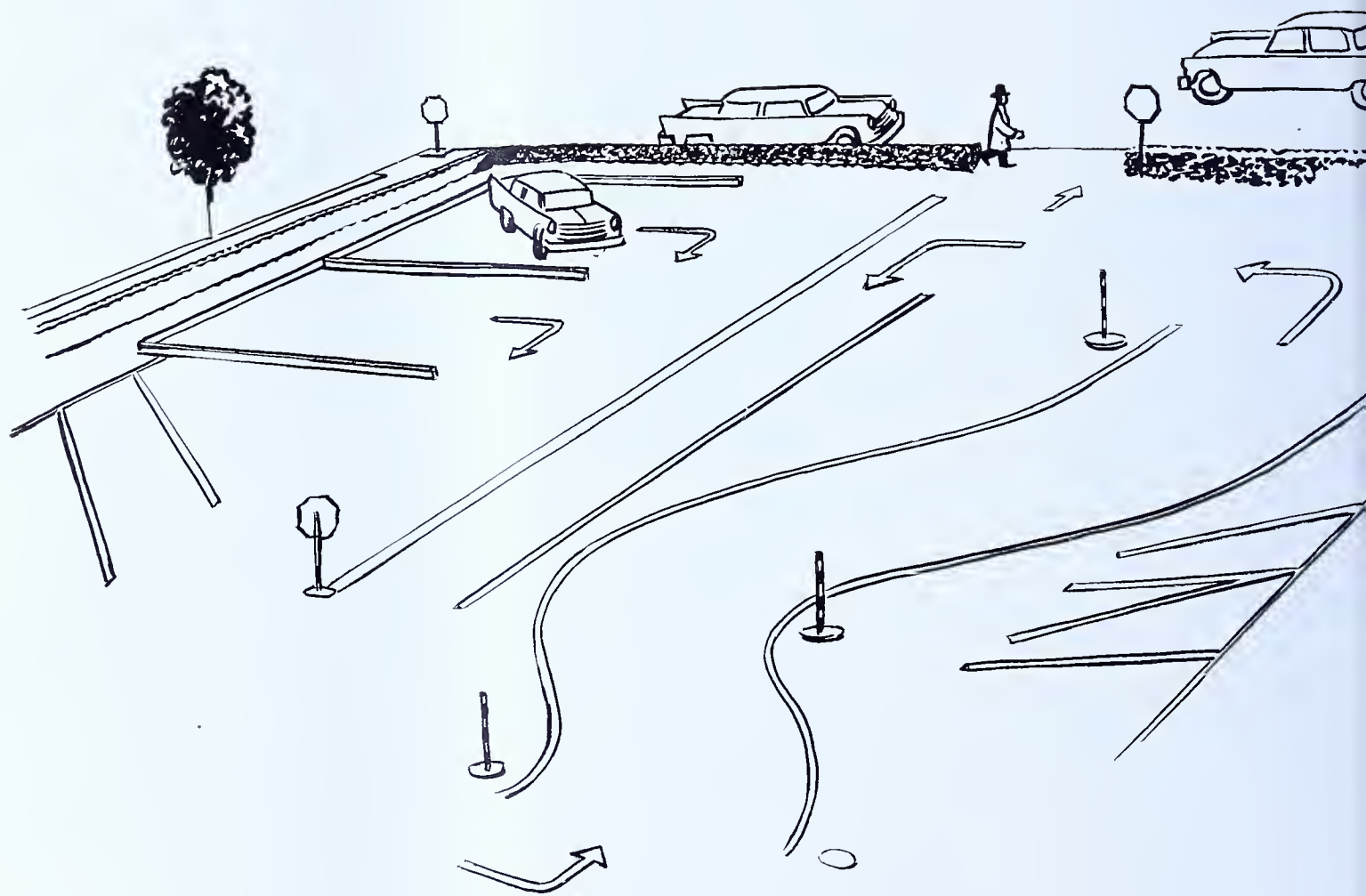
UNIT 11.—DRIVING AT NIGHT

STANDARD OR AUTOMATIC TRANSMISSION

Location: Open highway where traffic is not heavy

TEACHER OBJECTIVES	INSTRUCTIONAL OUTLINE
1. Teaching pupils how to drive at night	1. Driving at night a. Check the windshield and window glass for cleanliness. b. Make sure the light lenses are clean. c. Both headlights should be operating. d. The headlights must be focused correctly for good vision. e. Drive at a speed below the posted limit. f. Never overdrive your headlights. g. Regulate your speed according to conditions. h. Forty-five m.p.h. is the maximum speed for safe driving during the hours of darkness. i. Do not follow other cars as closely as in daylight hours.
2. Teaching how to drive in reduced light	2. Reduced visibility a. The low beam throws more light directly on and to the right of the road; use low beam to drive in fog, rain, snow, or hazy conditions. b. Use low beam when driving in city traffic or on lighted highways. c. When a car is approaching from the opposite direction, dim lights. d. Change your light rays once or twice to alert driver of oncoming car that his high beam is on. e. In hilly country, use bright rays whenever possible. f. Use low beam when you see cars approaching over the top of the hill. g. Watch for parked cars and for pedestrians crossing or walking along the highway. h. Concentrate your vision on the right edge of the road. i. Judge road position by center line. j. Use low beam to protect the driver of the car ahead. (Takes glare from rearview mirror.)
3. Teaching how to drive in glare	3. Glaring lights a. Avoid looking directly into approaching headlights. b. Be aware of the possibility of optical illusions. c. Avoid using lights inside the car while moving. They may blind the driver.

Appendix



Appendix

A. RECORD FORMS

The purpose of utilizing the following forms and records is to improve instruction, measure results, appraise and control costs, and establish maximum protection for the school personnel.

The record forms should be limited in number and detail and yet furnish, as directly as possible, all the information that may be requested. Much

of the information in the field of Driver and Highway Safety Education is of a cumulative nature and may be recorded daily or weekly. The student's progress and facts concerning the use of the car are of prime importance.

It is recommended that the following forms be reviewed and revised to be made applicable to the local situation.

PHYSICAL EXAMINATION REPORT

SENIOR HIGH SCHOOL DRIVER EDUCATION

Date

Name

Address City State

Grade Date of Birth Sex

Physical Examination Information:

Glasses—Yes No No. of years

Date of last eye examination

Did you require new glasses—Yes No

Visual acuity Right eye

Left eye

Both eyes

With correction

Color Discrimination Normal

Partial

Blind

General Physical condition:

Excellent Good Fair Poor

Physical disabilities:

(Explain fully)

Approved for Driving Instruction in School Car:

Date Signed

Instructor

Date

Date recorded in Student Folder:

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

Curriculum:
Grade:
Sex:

I have a: License Permit None *Suspended *Revoked

Actual driving experience (write in detail) :

Homeroom teacher: Homeroom Number:

Please complete your daily schedule in detail.

Period	Monday	Tuesday	Wednesday	Thursday	Friday
1					
2					
3					
4					
5					
6					
7					

CUMULATIVE RECORD CARD

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

Name: Date:

Age: Birthdate: School Year:

Address:

Class attitude*:

Driving attitude*:

Learner's permit obtained (date): Outside driving experience: (Home or employment)

Have you had more than one permit?

When: Number Year:

Car (cars) available in the home? Yes No.....

Make of car: *Final standing in the course:

Driving ability rating: Comment

Date

Additional information and remarks:

State driving test taken—Date:

Number of times test was taken:

State driving test passed—Date:

LEARNER'S PERMIT NUMBER

.....

• Instructor's evaluation upon completion of course.

INSTRUCTOR'S INDIVIDUAL CHECK SHEET

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

NOTE: This sheet is to be used daily for the individual student.

Name Grade Age Permit Date

Address Starting Date Type of car at home

[illegible]

LETTER TO PARENTS ON COMPLETION OF PROGRAM

HIGHWAY SAFETY EDUCATION PROGRAM

..... *HIGH SCHOOL*

..... *PENNSYLVANIA*

Date:

Dear

I am pleased to inform you that (name) has completed the Driver Education Course as offered by High School. He/she has been instructed in the theory of highway safety and accident prevention, and has had driving instruction in our dual control car.

He/she has had all the necessary basic instruction to become a good driver. However, we feel that home supervision is still essential to make him/her a safe driver.

The automobile is a necessity in our everyday life. For the remainder of their lives our children will be using a car for pleasure or for business. Won't you help your child to become a safe and competent driver?

For safety's sake, please ride with (first name) until he/she can handle your car expertly and safely under the complex driving conditions of today.

If we can be of additional assistance to you or your family, please call upon us.

Very truly yours,

Highway Safety Education Instructor

DAILY ATTENDANCE REPORT

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

Instructor:

Week of:

PERIOD	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1					
2					
3					
4					
5					
6					
7					

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

Car: License number: Month 19

Service dealer: Instructor: School:

[illegible]

MONTHLY TOTAL

DRIVER EDUCATION YEARLY COST REPORT

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

School: City:

Instructor: Period covered19.....to19.....

Teaching Personnel:

1. Annual Salary \$.....
2. Total hours devoted to the teaching of all subjects for school year
3. Total hours devoted to the teaching of Driver Education for school year
 - A. Teaching hours devoted to classroom instruction
 - B. Teaching hours devoted to driving instruction
4. Teacher's salary for Driver Education \$.....

Teaching Material Purchased:

1. Total cost of new text materials \$.....
2. Total cost of old text materials*
3. Total cost of new road instruction equipment
4. Total cost of old road instruction equipment*
5. Total cost of miscellaneous teaching materials, film shipping charges, standard tests, etc. \$.....

Driver Training Car:

1. Car renteddonatedbought \$.....
2. Yearly rent fee
3. Cost of car
4. Delivery fee
5. Dual controls—
 - A. Cost of controls
 - B. Installation fee
 - C. Removal fee \$.....
6. Insurance—
 - A. Cost of all insurance \$.....
 - B. Refund at end of term \$.....
Coverage—Public Liability.....Property Damage.....Collision.....
7. General Maintenance—
 - A. Gasoline—Gal. Cost \$.....
 - B. Oil—Quarts Cost
 - C. Lubrication— Cost
 - D. Washing of car— Cost
 - E. Repairs— Cost
 - F. Replacement of parts— Cost
 - G. Storage— Cost
8. Miscellaneous Costs.
Explain fully
.....
..... Cost \$..... \$.....

Total Operating Cost

\$..... \$.....

Student Information:

1. Number of students that have completed the course during the period of this report
2. Clock hours per student within the classroom
- **3. Clock hours per student within the car
- **4. Clock hours per student practice driving

* Pro-rate cost over the years that material has been used.

** Average.

NOTE REQUESTING PARENTAL APPROVAL

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

Date:

Dear

..... has expressed an interest in our course in Driver Education. Students taking this course will receive classroom instruction as well as instruction in practice driving. The car used for our practice driving has dual control pedals on the right-hand side for the instructor's use. The teacher of this course has had special training for this program.

Our objective in giving this training is to prepare competent, skillful, and responsible young drivers who will be a credit to their families and community.

If you wish to take this course, please read, detach, and sign the form granting your approval. This signed form must be returned to the Senior High School before any practice driving may be taken.

Very truly yours,

PARENTAL APPROVAL FOR INSTRUCTION IN DRIVER EDUCATION

Date:

I hereby give my approval for to enroll in the course in Driver Education, with the understanding that he/she will be under school supervision during the entire course. It is understood that it will be necessary to leave the building and school grounds to obtain practice driving instruction and to complete the course.

Signed
(Parent or Legal Guardian)

DRIVER CERTIFICATION

..... *High School*

DRIVER EDUCATION PROGRAM

This is to certify that
..... has satisfactorily completed a course in Driver Education consisting of hours of classroom instruction in addition to hours of instruction behind the wheel.

Date: Instructor:
Principal:

Wallet size—2½" x 4" or Certificate Size—5" x 8"

Reverse side to be used for the comment or slogan that is best suited to your area.

RELEASE FOR DRIVER EDUCATION CAR—RECEIPT AND INSPECTION REPORT

Return of Car to Dealer at End of School Term

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

Date

Instructor School year

DIRECTIONS: Return the car personally to the Dealer.

Complete this form in triplicate—

One copy for the Dealer

One copy for the Administrator

One copy for the Instructor

Information

Make of Car

Car number

Model Description

Manufacturer's number

Mileage on the car as of date returned

General condition (Be specific)

Instructor's comment

Equipment returned

Spare tire Owner's card Keys Chains Jack Other

Date Instructor

Date Principal

Date Dealer

RUBBER STAMPS

Suggested forms:

HIGHWAY SAFETY EDUCATION PROGRAM
..... HIGH SCHOOL
....., PA.

DRIVER EDUCATION PROGRAM
..... HIGH SCHOOL

JOHN JONES
DRIVER EDUCATION PROGRAM
..... HIGH SCHOOL
....., PA.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC INSTRUCTION
HARRISBURG

YOUR RATING AS A DRIVER

Name Sex Age Date
Address Height
Operator Plate Number State Weight

PSYCHOPHYSICAL TEST RATING

Test	Visual Acuity:	Grade	Score	
	Right Eye	_____	_____	
	Left Eye	_____	_____	
	Both Eyes	_____	_____	
				Legend
				14-15 A
				12-13 B
				9-11 C
				7- 8 D
				0- 6 E
<hr/>				
Test	Night Vision:			
	Both Eyes	Trial 1 _____	Trial 2 _____	Trial 3 _____
				Sum of 3 Trials
				29-30 A
				26-28 B
				22-25 C
				17-21 D
				0-16 E
<hr/>				
Test	Glare Vision:			
	Both Eyes	Trial 1 _____	Trial 2 _____	Trial 3 _____
				Sum of 3 Trials
				24-30 A
				21-23 B
				18-20 C
				16-17 D
				0-15 E
<hr/>				
Test	Field of Vision:			
	Right Eye	Trial 1 _____	Trial 3 _____	
	Left Eye	Trial 2 _____	Trial 4 _____	
				Sum of 4 Trials
				430-440 A
				410-429 B
				390-409 C
				370-389 D
				0-369 E
<hr/>				
Test	Distance Judgment:			
	Right Car	Trial 1 _____	2 _____	3 _____
	Left Car	_____	_____	_____
				Sum of 10 Trials
				0-7 A
				8-14 B
				15-29 C
				30-59 D
				60-100 E
<hr/>				
Test	Color Discrimination:			
		Normal _____	Partial _____	Color Blind _____
<hr/>				
Test	Steadiness:			
		Trial 1 _____	2 _____	3 _____
			4 _____	5 _____
				Sum of 5 Trials
				60-80 A
				50-59 B
				40-49 C
				30-39 D
				20-29 E

YOUR RATING AS A DRIVER, *continued*

Test		Legend
Simple Reaction Time:		Sum of 10 Trials
	Trial 1 _____ 2 _____ 3 _____ 4 _____ 5 _____	20-31 A
	6 _____ 7 _____ 8 _____ 9 _____ 10 _____	32-35 B
		36-41 C
		42-49 D
		50-over E
	Total Score _____ Grade _____	

Test		Sum of 10 Trials
Foot Reaction Time:		0-369 A
	Trial 1 _____ 2 _____ 3 _____ 4 _____ 5 _____	370-409 B
	6 _____ 7 _____ 8 _____ 9 _____ 10 _____	410-449 C
		450-489 D
		490-600 E
	Total Score _____ Grade _____	

August—1951

CERTIFICATE OF COMPLETION FOR INSURANCE ADJUSTMENT

SENIOR HIGH SCHOOL DRIVER EDUCATION PROGRAM

Date

This is to certify that has satisfactorily completed a Driver Education Course with a minimum of hours of classroom theory and hours of supervised driving instruction.

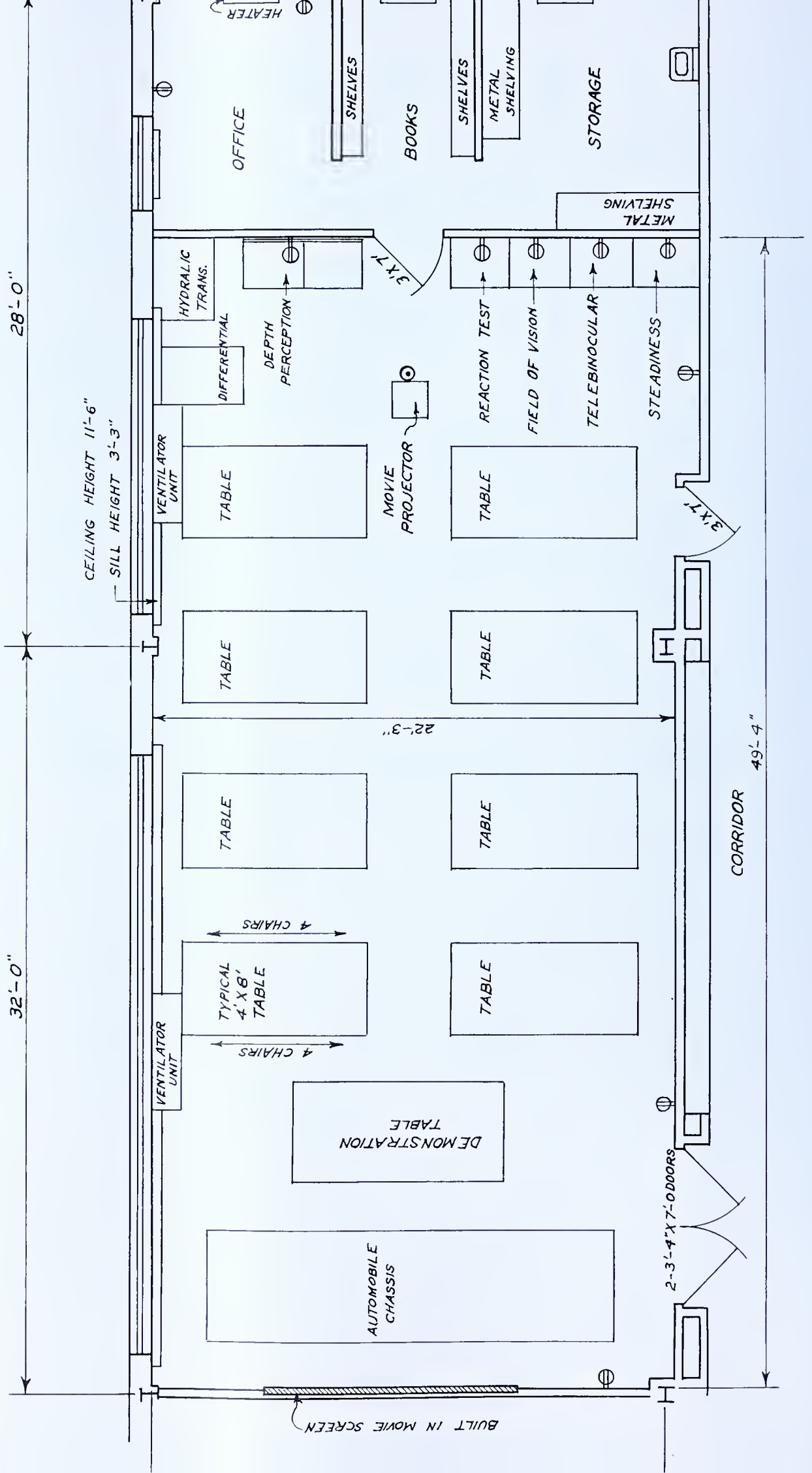
High School

City State

Signed

Date course was completed

B-SUGGESTED MODERN CLASSROOM



C—SUGGESTED OFF-STREET PRACTICE RANGE

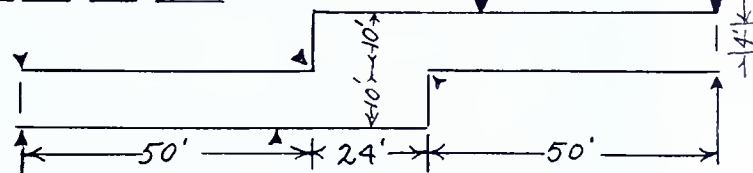
STREET MARKINGS FOR SKILL TESTS

All dimensions to center of lines. All lines 4' wide ▲ Station

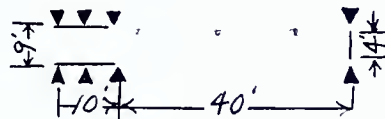
1. STRAIGHT LINE, FORWARD AND BACKWARD 100 FEET.



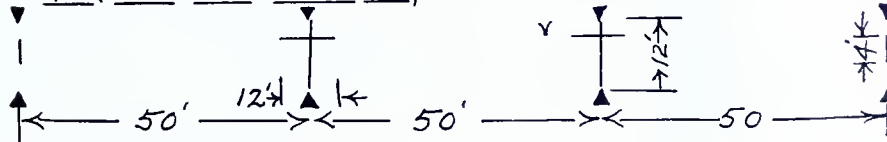
2. GAUGING SPACE. STEERING IN CLOSE LIMITS.



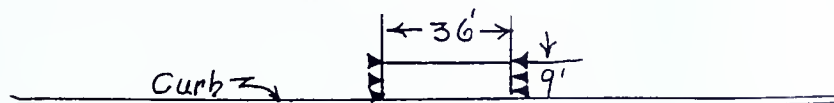
3. SMOOTH STOPPING. IN 40 FT AT 20 M.P.H.



4. FRONT AND BACK LIMITS, WHEELS AND BUMPERS



5. PARALLEL PARKING.



6. MEASURING THINKING AND BRAKING DISTANCE

D. BIBLIOGRAPHY

This bibliography is included as an aid in building a safety reference library. Textbooks and other publications are not listed by title. It is to be understood that this compilation is merely suggestive and not exhaustive.

Bulletins available from the Department of Public Instruction, Harrisburg

- Bulletin 208: *Audio Visual Aids Catalog*
- Bulletin 233B: *The Elementary Course of Study*¹ Sections on safety for elementary grades
- Bulletin 311: *Physical Education*
- Bulletin 391: *School Safety Patrol*
- Bulletin 394: *Teaching Bicycle Safety by Practice*
- Bulletin 395: *A Guide to Driver Education and Highway Safety*
- Bulletin 396: *Handbook for School Bus Drivers*
- Bulletin 398: *A study of Accidents to Pennsylvania Farm People*
- Bulletin 399: *Program of Fire Prevention in Schools*

Published Bibliographies

- Bibliography of Traffic Safety Material and Publications.* General Motors Corporation, General Motors Bldg., Detroit 2, Michigan
- Civilian Defense—Selected References for Teachers.* Center for Safety Education, 8 Fifth Ave., New York City
- Dramatizations in Safety Education: An Annotated Bibliography.* National Education Association, 1201 Sixteenth St., Washington 6, D. C.
- Industrial Hygiene and Occupational Diseases.* Center for Safety Education, New York
- List of Motion Pictures on Fire Prevention and Protection.* National Fire Protection Association, Boston, Mass.
- Safety and Safety Education: An Annotated Bibliography.* National Education Association, 1201 Sixteenth St., Washington, D. C.
- Selected Bibliography in Traffic-Safety Education and Driver Training.* Center for Safety Education, New York
- Service Guild, Revised Edition.* National Safety Council, Chicago, Ill.
- Visual Aids in Safety Education.* National Education Association, 1201 Sixteenth St., Washington, D. C.
- Audio Visual Aid Catalog.* Bulletin 208. Department of Public Instruction, Harrisburg
- Film Catalog.* Mimeographed. Department of Public Instruction, Division of Instructional Aids and Materials, Harrisburg

Sources of Driver Education Equipment:

- Aetna Drivotrainer, Aetna Casualty and Surety Co., Hartford 15, Conn.
- Charts of Transmission, Engine, Fuel System, Ignition System, Educational Service Department, General Motors Corporation, 3044 W. Grand Blvd., Detroit 2, Mich.
- Marker Flags, Davis and Box Co., 3549 Bryn Mawr Ave., Dallas 5, Texas
- Good Driver Agreements for Young Drivers, Inter-Industry Highway Safety Committee, 1200 Eighteenth St., N. W., Washington 6, D. C.
- Plastic Model of Auto Engine Operation, Viking Importers, 113 S. Edgemont St., Los Angeles 4, Cal.
- Porto-Clinic, Instruments, Inc., 298 Broadway, New York 7
- Psychophysical Testing Apparatus, Working Models and other Teaching Aids, American Automobile Association, 1712 G Street, N. W., Washington 6, D. C.
- Psychophysical Testing Apparatus, Heylman-Bylt, 4945 Edgemen Avenue, Baltimore 15, Md.

¹ Out of stock; however many are in use throughout the State.



E. SOURCES OF VISUAL AIDS AND EQUIPMENT

Film Sources:

Aetna Life Insurance Company, Public Education Department, Hartford 15, Connecticut
American Automobile Association, Washington 6, D. C.
American Trucking Association, 1425 Sixteenth St., N. W., Washington, D. C.
Association Films, 35 West Forty-fifth Street, New York 19
Bailey Films, Inc., 6509 DeLongpre Avenue, Hollywood 28, California
Bell Telephone, local offices
Castle Films, 1445 Park Avenue, New York City
Cheney Brothers Film Laboratories, 1420 N. Wilcox Avenue, Hollywood, Cal.
Cine-Tel Productions, 6327 Santa Monica Blvd., Los Angeles, Cal.
Citizens Traffic Safety Board of Metropolitan Chicago, 20 N. Wacker Drive, Chicago 16, Ill.
Coronet Films, Coronet Building, Chicago 1, Ill.
Dallas Jones Productions, 1725 N. Wells Street, Chicago, Ill.
Davis Productions—Sid Davis, 3826 Cochran Avenue, Los Angeles 56, Cal.
Education and Information Unit, Bureau of Highway Safety, Department of Revenue, Commonwealth of Pennsylvania, Harrisburg
Ford Motor Company, Motion Picture Department, Dearborn, Michigan
General Motors Corporation, Film Distribution Section, Public Relations Department, General Motors Building, Detroit 2, Mich.
Instructional Aids and Materials Division, Department of Public Instruction, Commonwealth of Pennsylvania, Harrisburg
Jam Handy Organization, 5821 East Grand Blvd., Detroit 11, Mich.
Kaiser-Frazer Sales Corporation, 107 Administration Bldg., Willow Run, Mich.
Kunz Motion Picture Service, 1319 Vine Street, Philadelphia 7
Lumberman's Mutual Casualty Co., Public Relations Department, Mutual Insurance Building, Chicago 40, Ill.
March of Time Forum Films, 369 Lexington Avenue, New York 17
Modern Talking Pictures, Inc., 45 Rockefeller Plaza, New York 20
National Dairy Products Corp., 260 Madison Avenue, New York 16
National Highway Safety Users Conference, National Press Bldg., Washington, D. C.
National Safety Council, 425 N. Michigan Avenue, Chicago 11, Ill.
Nationwide Mutual Insurance Co., Public Relations Department, 246 N. High Street, Columbus, Ohio
New York Good Roads Association, Box 29, State Office Building Station, Albany, N. Y.
Pennsylvania State Teachers Colleges. Write to the Teachers College nearest you.
Progressive Pictures, 6351 Thornhill Drive, Oakland 11, Cal.

Socony-Vacuum Oil Co., New York City
Teaching Film Custodians, 25 West Forty-third St., New York 18
United States Bureau of Mines, Graphic Services Section, 4800 Forbes St., Pittsburgh 13
United World Films, Inc., 1445 Park Avenue, New York 29

Sources of Related Materials:

Book listings:

Automotive Mechanics, McGraw-Hill Book Company, 330 W. Forty-second Street, New York 18
Digest of Vehicle Code of Pennsylvania and Students Manual. Department of Revenue, Commonwealth of Pennsylvania, Harrisburg
Fundamental Principles of Driving. Banks, Upshaw and Co., Dallas, Texas
Let's Drive Right. Scott, Foresman and Co., 114 E. Twenty-third St., New York 10
Manual of Regulations for Official Traffic Signals and Markings. Department of Highways, Commonwealth of Pennsylvania, Harrisburg
Man and the Motor Car. Prentice-Hall, Inc., 70 Fifth Avenue, New York 11
Road to Better Driving. Cambridge Book Company, 6 Varick St., New York 13
Safety Education for Efficient Living. Burgess Publishing Co., 426 S. 6th St., Minneapolis 15, Minn.
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American Association of Motor Vehicle Administrators, 912 Barr Building, Washington 6, D. C.
American Association of School Administrators, 1201 Sixteenth Street, N. W., Washington 6, D. C.
American Automobile Association, 1712 G Street, N. W., Washington 6, D. C.
American Automobile Association, local clubs
American Red Cross, 17th and D Sts., Washington, D. C.
American Trucking Association, 1425 Sixteenth Street, N. W., Washington, D. C.
Association of Casualty and Surety Companies, 60 John Street, New York 38
Automobile Manufacturers Association, 366 Madison Avenue, New York City
Automotive Safety Foundation, 200 Ring Building, Washington 6, D. C.
Better Traffic Bureaus and Committees, Local organizations
Center for Safety Education, Division of General Education, N. Y. U., Washington Square, New York 3, N. Y.
Consumer's Union of the United States, Inc., New York City
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Inter-Industry Highway Safety Committee, 1200 Eighteenth Street, N. W., Washington, D. C.
Industrial Science Research Institute, Iowa State College, Ames, Iowa
Keystone Automobile Club, local clubs
National Board of Fire Underwriters, 85 John Street, New York 7
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